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OM protein - protein search, using sw model

Run on: December 10, 2003, 18:12:09 ; Search time 22 Seconds
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Total number of hits satisfying chosen parameters: 328717

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued Patents AA:
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2: /cggn2_6/podata/1/iaa/5B_COMB.pep:
3: /cggn2_6/podata/1/iaa/6A_COMB.pep:
4: /cggn2_6/podata/1/iaa/6B_COMB.pep:
5: /cggn2_6/podata/1/iaa/PECTUS_COMB.pep:
6: /cggn2_6/podata/1/iaa/backfiles.pep:
Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query	Match Length	DB	ID	Description
1	64.05	98.3	1207	1	US-07-951-115A-7	Sequence 7, Appli
2	64.05	98.3	1207	2	US-08-459-448A-7	Sequence 7, Appli
3	64.05	98.3	1207	3	US-08-459-595A-7	Sequence 7, Appli
4	64.05	98.3	1207	3	US-08-459-504B-7	Sequence 7, Appli
5	64.05	98.3	1207	3	US-08-459-444-7	Sequence 7, Appli
6	64.05	98.3	1207	3	US-09-153-549-8	Sequence 7, Appli
7	64.05	98.3	1207	4	US-09-547-422-7	Sequence 7, Appli
8	6044.5	92.8	1227	3	US-09-053-549-2	Sequence 2, Appli
9	5413.5	83.1	1229	1	US-08-100-709-4	Sequence 4, Appli
10	5413.5	83.1	1229	1	US-08-176-865-4	Sequence 4, Appli
11	5413.5	83.1	1229	1	US-08-474-038-4	Sequence 4, Appli
12	5413.5	83.1	1229	2	US-08-779-046-4	Sequence 4, Appli
13	5413.5	83.1	1229	1	US-08-881-340-4	Sequence 4, Appli
14	5350.5	82.1	1227	1	US-08-448-170-8	Sequence 8, Appli
15	5350.5	82.1	1227	3	US-08-161-103-9	Sequence 9, Appli
16	4549	69.8	1186	3	US-09-178-252-23	Sequence 23, Appli
17	3739	57.4	1170	1	US-08-032-364-2	Sequence 2, Appli
18	3731.5	57.3	1167	1	US-08-100-709-2	Sequence 2, Appli
19	3731.5	57.3	1167	1	US-08-176-865-2	Sequence 2, Appli
20	3731.5	57.3	1167	1	US-08-474-038-2	Sequence 2, Appli
21	3731.5	57.3	1167	2	US-08-779-046-2	Sequence 2, Appli
22	3731.5	57.3	1167	2	US-08-881-340-2	Sequence 2, Appli
23	3572	54.8	1174	1	US-08-040-151-3	Sequence 3, Appli
24	3572	54.8	1174	1	US-08-291-368-2	Sequence 2, Appli
25	3572	54.8	1174	2	US-08-962-190-2	Sequence 2, Appli
26	3572	54.8	1174	5	PCT-US95-10310-2	Sequence 2, Appli
27	3572	54.8	1174	6	5164180-4	Patent No. 5164180

ALIGNMENTS

RESULT 1
US-07-951-715A-7
; Sequence 7, Application US/07951715A
; Patent No. 5625136

GENERAL INFORMATION:

APPLICANT: Koziel, Michael G.
APPLICANT: Desai, Nalini M.
APPLICANT: Lewis, Kelly S.
APPLICANT: Kramer, Vance C.
APPLICANT: Warren, Gregory W.
APPLICANT: Evola, Stephen V.
APPLICANT: Crossland, Lyle D.
APPLICANT: Wright, Martha S.
APPLICANT: Merlin, Ellis J.
APPLICANT: Launis, Karen L.
APPLICANT: Rothstein, Steven J.
APPLICANT: Bowman, Cindy G.
APPLICANT: Dawson, John L.
APPLICANT: Dundee, Erik M.
APPLICANT: Pace, Gary M.
APPLICANT: Suttie, Janet L.
TITLE OF INVENTION: SYNTHETIC DNA SEQUENCE HAVING ENHANCED INSECTICIDAL ACTIVITY IN MAIZE
NUMBER OF SEQUENCES: 94

CORRESPONDENCE ADDRESS:
ADDRESSEE: CIBA-GEIGY Corporation
STREET: 7 Skyline Drive
CITY: Hawthorne
STATE: New York
COUNTRY: USA
ZIP: 10532
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30B
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/951.715A
FILING DATE: 25-SEP-1992
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/772,027
FILING DATE: 04-OCT-1991
ATTORNEY/AGENT INFORMATION:
NAME: Spruill, W. Murray
REGISTRATION NUMBER: 32,943
REFERENCE/DOCKET NUMBER: S-18805/A/GC 1577/CIP
TELECOMMUNICATION INFORMATION:
TELEPHONE: (919)541-8615
TELEFAX: (919)541-8669

INFORMATION FOR SEQ ID NO: 7:

LENGTH: 1207 amino acids

TYPE: amino acid

TOPOLGY: linear

MOLECULE TYPE: protein

US-07-951-75A-7

Query Match 98.3% Score 6405; DB 1; Length 1207;

Best Local Similarity 99.4%; Pred. No. 0; Mismatches 1; Indels 0; Gaps 0;

Matches 1206; Conservative 1

Db 22 MDLDPDARIEDSICIAEENNIDPFVSSSTVQGINAGRIGLIVGPPAGQLASFVSLV 81

Db 1 MDLDPDARIEDSICIAEENNIDPFVSSSTVQGINAGRIGLIVGPPAGQLASFVSLV 60

Qy 82 GELWPRGDQWEFLEREQOLLNQITENANTALARLQLGDSFRAYQQLSEDWLNRD 141

Db 61 GELWPRGDQWEFLEREQOLLNQITENANTALARLQLGDSFRAYQQLSEDWLNRD 120

Qy 1412 DARTRSVLHTOYTALEDFLNAMPLFAIRNOEVPLMIVYAQAAANHILLJRDASLGSEF 201

Db 121 DARTRSVLHTOYTALEDFLNAMPLFAIRNOEVPLMIVYAQAAANHILLJRDASLGSEF 180

Qy 202 GITSQEICRYERQVERTDSDYCVMWNTGLNSLRGTNAASWTRYNOFRDLTILGVD 261

Db 181 GITSQEICRYERQVERTDSDYCVMWNTGLNSLRGTNAASWTRYNOFRDLTILGVD 240

Qy 262 LYALFPSYDTRYPPINTSAQLTREVYTDAGATGVNNMASWYNMNNAPSSAIEAAIRS 321

D5 241 LYALFPSYDTRYPPINTSAQLTREVYTDAGATGVNNMASWYNMNNAPSSAIEAAIRS 300

Qy 322 PHLDFFLQLTIFSASSRWSNTRHMTYWRGHFTOSPIGGGLNTSTHGANTNSINPVTLR 381

Db 301 PHLDFFLQLTIFSASSRWSNTRHMTYWRGHFTOSPIGGGLNTSTHGANTNSINPVTLR 360

Qy 382 FASRDVYRTESYAVLLWGIYLEPTHPGVTPTVRNFNPNQTSDRGTAANTSQPYESPGLQ 441

Db 361 FASRDVYRTESYAVLLWGIYLEPTHPGVTPTVRNFNPNQTSDRGTAANTSQPYESPGLQ 420

Qy 442 KDSETELPPETERPNEYSYSHRLSHIGIILQSRVNPVSWTHRSADRINTIGNRITQ 501

Db 421 KDSETELPPETERPNEYSYSHRLSHIGIILQSRVNPVSWTHRSADRINTIGNRITQ 480

Qy 502 IPMVKASELPQCTTVRGPGTGGDILRURINTGGFPPIRVTVNGPLTQRIGFRYASTV 561

Db 481 IPMVKASELPQCTTVRGPGTGGDILRURINTGGFPPIRVTVNGPLTQRIGFRYASTV 540

Qy 5612 DDFFFYRSRGITVNNFRFLTMNSGDELYKGNYVERAFTTPFTFQIQDITRTSQHSQ 621

Db 541 DDFFFYRSRGITVNNFRFLTMNSGDELYKGNYVERAFTTPFTFQIQDITRTSQHSQ 600

Qy 622 NGEVYIDKIELIPVTTAEFYDLERAQEAVNALFTNTNPRRLKDVTYDHIDQVSNLVA 681

Db 601 NGEVYIDKIELIPVTTAEFYDLERAQEAVNALFTNTNPRRLKDVTYDHIDQVSNLVA 660

Qy 682 CLSDEFCLDEKRELLKVYAKRSLDERNLQDPNFTSINKOPDPISTEQSNTSIHQ 741

Db 661 CLSDEFCLDEKRELLKVYAKRSLDERNLQDPNFTSINKOPDPISTEQSNTSIHQ 720

Qy 742 SEHGMWSENITIOEGNDVFKEINYVTLPGTNECYPYTLQKIGSESELKAYTRYQLRGV 801

Db 721 SEHGMWSENITIOEGNDVFKEINYVTLPGTNECYPYTLQKIGSESELKAYTRYQLRGV 780

Qy 802 EDSQDLEIYLTRYNAKHEILDVGCTDHLNLTWPLSVSPIGRCGPNCAPFEWNPDLDSC 861

Db 781 EDSQDLEIYLTRYNAKHEILDVGCTDHLNLTWPLSVSPIGRCGPNCAPFEWNPDLDSC 840

Qy 862 RDGEKAHHSHFSLDIDVGCTDHLNLTWPLSVSPIGRCGPNCAPFEWNPDLDSC 921

Db 841 RDGEKAHHSHFSLDIDVGCTDHLNLTWPLSVSPIGRCGPNCAPFEWNPDLDSC 900

Qy 922 LSRVKAEEKKWRDKREBKLLQLETKRVYTEAKAVDLFVDSQYDRQLADTNIGMHAADKL 981

RESULT 2

US-08-459-448A-7

Sequence 7 Application US/08459448A

Patent No. 5859336

GENERAL INFORMATION:

APPLICANT: Koziel, Michael G.

APPLICANT: Desai, Nalini M.

APPLICANT: Lewis, Kelly S.

APPLICANT: Kramer, Vance C.

APPLICANT: Warren, Gregory W.

APPLICANT: Evola, Stephen V.

APPLICANT: Crossland, Lyle D.

APPLICANT: Wright, Martha S.

APPLICANT: Merlin, Ellis J.

APPLICANT: Launis, Karen L.

APPLICANT: Rothsein, Steven J.

APPLICANT: Bowman, Cindy G.

APPLICANT: Dawson, John L.

APPLICANT: Duader, Erik M.

APPLICANT: Pace, Gary M.

APPLICANT: Suttie, Janet L.

TITLE OF INVENTION: SYNTHETIC DNA SEQUENCE HAVING ENHANCED CORRESPONDENCE ADDRESS:

ADDRESSEE: No. 5859336artis Corporation

STREET: Patent & Trademark Dept., 520 White Plains

CITY: Rd, POB 2005

STATE: Tarrytown

COUNTRY: New York

ZIP: 10591-9005

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patent In Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/459,448A

FILING DATE: 02-JUN-1995

CLASSIFICATION: 800

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/951,715

FILING DATE: 25-SEP-1992

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/772,027

FILING DATE: 04-OCT-1991

ATTORNEY/AGENT INFORMATION:

NAME: Pace, Gary M.

REGISTRATION NUMBER: 4 04 03
 REFERENCE/DOCKET NUMBER: CGC 1577/CIP/DIV4
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (919) 541-8582
 TELEFAX: (919) 541-8689
 INFORMATION FOR SEQ ID NO: 7:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 1207 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 US -08-459-448A-7

Query Match 98.3%; Score 6405; DB 2; Length 1207;
 Best Local Similarity 99.9%; Pred. No. 0;
 Matches 1206; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 22 MDLLPDAEEDSLCIAEGNNIDPFYSASTVQTGINTAGTRILGVLPAGOLASAFSYFLY 81
 Db 1 MDLLPDAEEDSLCIAEGNNIDPFYSASTVQTGINTAGTRILGVLPAGOLASAFSYFLY 60

Qy 82 GBLWPGRDQEFLHEVQLINQITENARNTALARLQIGDSDRAYQOSLEDWLENDR 141
 Db 61 GBLWPGRDQEFLHEVQLINQITENARNTALARLQIGDSDRAYQOSLEDWLENDR 120

Qy 142 DARTRSVLTTOYIALEDFNAMPFLFAIRNQEVPLMVYQAANTHLLRNDARLSFGSEF 201
 Db 121 DARTRSVLTTOYIALEDFNAMPFLFAIRNQEVPLMVYQAANTHLLRNDARLSFGSEF 180

Qy 202 GLTSDQETQYERQVERTDYSDYCVWNYTGLNSLRGTNAASWRYNQPRRDLTGVD 261
 Db 181 GLTSDQETQYERQVERTDYSDYCVWNYTGLNSLRGTNAASWRYNQPRRDLTGVD 240

Qy 262 LVALFPSYDRTYPINTSAQLTREVTYDAGATGYNMASKWYNNAAPSSAEAAIRS 321
 Db 241 LVALFPSYDRTYPINTSAQLTREVTYDAGATGYNMASKWYNNAAPSSAEAAIRS 300

Qy 322 PHLDLPLEQLTIFSASSRWNSTRMTYWRGHTIOSRPIGGCLNTSTHGATNTSINPVTLR 381
 Db 301 PHLDLPLEQLTIFSASSRWNSTRMTYWRGHTIOSRPIGGCLNTSTHGATNTSINPVTLR 360

Qy 382 FASRDVYRTESYAGVILWGIYLEPIHGVPYTRFNFTNPQNISDRGTA NTQYSPYESPGLQ 441
 Db 361 FASRDVYRTESYAGVILWGIYLEPIHGVPYTRFNFTNPQNISDRGTA NTQYSPYESPGLQ 420

Qy 442 KDSSETLPETTERNEYESTSHRLSHIGIILQSRYNVPVSWTHSADRINTGNRITQ 501
 Db 421 KDSSETLPETTERNEYESTSHRLSHIGIILQSRYNVPVSWTHSADRINTGNRITQ 480

Qy 502 I PMVKASELPQOCTTVYRGFTGGDLIRRTNTGGPPIRTVNGPLTORIGFRYASTV 561
 Db 481 I PMVKASELPQOCTTVYRGFTGGDLIRRTNTGGPPIRTVNGPLTORIGFRYASTV 540

Qy 562 DDEFYFSRGCTTVANFRFLTMNSGDELKYGNVRAFTPTFTQIOQDIRTSQGLSG 621
 Db 541 DDEFYFSRGCTTVANFRFLTMNSGDELKYGNVRAFTPTFTQIOQDIRTSQGLSG 600

Qy 682 CLSDEFCLDEKRELBKVYAKRLSDERNLQDPNFTSINKQDPFTSTMFCNFNTSIEQ 741
 Db 661 CLSDEFCLDEKRELBKVYAKRLSDERNLQDPNFTSINKQDPFTSTMFCNFNTSIEQ 720

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 Db 721 SEHGMNGSENITIOEGNDVKENYVTPLGTFNECYPTYLQKIGSEELKAYTRYQRYI 780

Qy 802 EDSQDLTLYLTRYNAGHETLDPVGTSLWPLSVSPTGCEPNRCAFPHEWNPDLDSC 861
 Db 781 EDSQDLTLYLTRYNAGHETLDPVGTSLWPLSVSPTGCEPNRCAFPHEWNPDLDSC 840

Qy 862 RDGEKCAHHSHHSFSLDDIDYGCTDLHENLGWVVFKITOEGHARLGNLEFEKEPLLGEA 921
 Db 841 RDGEKCAHHSHHSFSLDDIDYGCTDLHENLGWVVFKITOEGHARLGNLEFEKEPLLGEA 900

Qy 922 LSRVRAEKKWRDKREKLOLETKVYTEAKEAVDPLFDVSDQYDRLOADTNIGMTHAADKL 981
 Db 901 LSRVRAEKKWRDKREKLOLETKVYTEAKEAVDPLFDVSDQYDRLOADTNIGMTHAADKL 960

Qy 982 VHRIREBALSELSPVPGVNAIEFELLEGHITASLYDARNVVKNGDFNGLTCMVVKGH 1041
 Db 961 VHRIREBALSELSPVPGVNAIEFELLEGHITASLYDARNVVKNGDFNGLTCMVVKGH 1020

Qy 1042 VDVOQSHHRSDDLVIEWEAEVSQAVRCPCGYIIRVTAKEGYCGBGCVTHIEBNNTDE 1101
 Db 1021 VDVOQSHHRSDDLVIEWEAEVSQAVRCPCGYIIRVTAKEGYCGBGCVTHIEBNNTDE 1080

Qy 1102 LKFKNREEEVYPTGTCNDYTAQGTTACADACNSRNAGYEDYEVDTTASVNYKPY 1161
 Db 1081 LKFKNREEEVYPTGTCNDYTAQGTTACADACNSRNAGYEDYEVDTTASVNYKPY 1140

Qy 1162 BEETYTDVRDNHCFYDRGYNWPPVPAQSYVTKELYFPPTDTWIEGSTEGKIVDVS 1222
 Db 1141 BEETYTDVRDNHCFYDRGYNWPPVPAQSYVTKELYFPPTDTWIEGSTEGKIVDVS 1200

Qy 1222 ELLMEB 1228
 Db 1201 ELLMEB 1207

RESULT 3
 US -08-459-595A-7
 Sequence 7, Application US/08459595A
 ; Patent No. 601814

GENERAL INFORMATION:
 / APPLICANT: Koziel, Michael G.
 / APPLICANT: Desai, Nalinii M.
 / APPLICANT: Lewis, Kelly S.
 / APPLICANT: Kramer, Vance C.
 / APPLICANT: Warren, Gregory W.
 / APPLICANT: Brobla, Stephen V.
 / APPLICANT: Crossland, Lyle D.
 / APPLICANT: Wright, Martha S.
 / APPLICANT: Merlin, Ellis J.
 / APPLICANT: Launis, Karen L.
 / APPLICANT: Rothstein, Steven J.
 / APPLICANT: Bowman, Cindy G.
 / APPLICANT: Dawson, John L.
 / APPLICANT: Dunder, Erik M.
 / APPLICANT: Pace, Gary M.
 / APPLICANT: Stutte, Janet L.

TITLE OF INVENTION: SYNTHETIC DNA SEQUENCE HAVING ENHANCED
 TREATMENT ACTIVITY IN MAIZE
 NUMBER OF SEQUENCES: 94

CORRESPONDENCE ADDRESS:
 ADDRESSE: No. 601814 Artis Corporation
 STREET: Patent & Trademark Dept., 520 White Plains
 STREET: Rd., POB 2005
 CITY: Tarrytown
 STATE: New York
 COUNTRY: USA
 ZIP: 10591-9005

COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: PatentIn Release #1.0, Version #1.30
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/459-595A
 FILING DATE: 02-JUN-1995
 CLASSIFICATION: 800
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 07/951,715
 FILING DATE: 25-SEP-1992

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/772,027
FILING DATE: 04-OCT-1991
ATTORNEY/AGENT INFORMATION:
NAME: Pace, Gary M.
REGISTRATION NUMBER: 40403
REFERENCE/DOCKET NUMBER: CGC 1577/CIP/DIV3
TELECOMMUNICATION INFORMATION:
TELEPHONE: (919) 541-8582
TELEFAX: (919) 541-8689
INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
LENGTH: 1207 amino acids
TYPE: amino acid
TOPOLogy: linear
MOLECULE TYPE: protein
US-08-459-594A-7

Query Match Similarity 98.3%; Score 6405; DB 3; Length 1207;
Best Local Similarity 99.9%; Pred. No. 0; Gaps 0;
Matches 1206; Conservative 1; Mismatches 0; Indels 0;

Qy 22 MDLLPDAIEDSLCIAEGNNIDPFVNASSTVQGNIAGRLIGLVPPAQGLASPSFLV 81
Db 1 MDLLPDAIEDSLCIAEGNNIDPFVNASSTVQGNIAGRLIGLVPPAQGLASPSFLV 60

Qy 82 GBLWPRGRDQEWFLEHVBOLINQQTENARNTALARQGLGDSFRAYQOSLEDLNRD 141
Db 61 GBLWPRGRDQEWFLEHVBOLINQQTENARNTALARQGLGDSFRAYQOSLEDLNRD 120

Qy 142 DARTRSVLIHTOYIALEDFNAMPLPAIRNOEVPLMVYQAANHLLLRDASLGFSBP 201
Db 121 DARTRSVLIHTOYIALEDFNAMPLPAIRNOEVPLMVYQAANHLLLRDASLGFSBP 180

Qy 202 GLTSQEIQYERQVERTDSDCYEWINTGLNSLRGTNAASWRYNQPRDLTGLVID 261
Db 181 GLTSQEIQYERQVERTDSDCYEWINTGLNSLRGTNAASWRYNQPRDLTGLVID 240

Qy 262 LVALFPYDTRTPINTSAQLTREVVYDTAIGATGYNNMASMNWYNNAAPSFSAIEAAIRS 321
Db 241 LVALFPYDTRTPINTSAQLTREVVYDTAIGATGYNNMASMNWYNNAAPSFSAIEAAIRS 300

Qy 322 PHLLDFLQLTFSASSRWSNTRHMITYWRGHTIQSRPIGGGLNTSTHGAINTSINPVTLR 381
Db 301 PHLLDFLQLTFSASSRWSNTRHMITYWRGHTIQSRPIGGGLNTSTHGAINTSINPVTLR 360

Qy 382 FASRDVYRTESYAGVLWGLYLEPIHGCVPTYTFENFTNPONISDRGTANTSQYESPGQL 441
Db 361 FASRDVYRTESYAGVLWGLYLEPIHGCVPTYTFENFTNPONISDRGTANTSQYESPGQL 420

Qy 442 KDSETELPPETTERPNVSYSHRLSHGIIQSRSYVNPVSWTHRSADRNTTGNRITQ 501
Db 421 KDSETELPPETTERPNVSYSHRLSHGIIQSRSYVNPVSWTHRSADRNTTGNRITQ 480

Qy 502 IPMVKASELPQGTTVRGPGFTGQDILRLRNTGGFPIRTRYNGPLTQYRIGFYASTV 561
Db 481 IPMVKASELPQGTTVRGPGFTGQDILRLRNTGGFPIRTRYNGPLTQYRIGFYASTV 540

Qy 562 DDFEFFSRRGGTVAANNRFLRMTNSGDELKYGNFVRRAFTPFTFOQDQIRTSGLSG 621
Db 541 DDFEFFSRRGGTVAANNRFLRMTNSGDELKYGNFVRRAFTPFTFOQDQIRTSGLSG 600

Qy 622 NGEVYIDKIELIPVTAPEYDLEAQEAVALFTNTNPERLKTDVTDYHDQVSNLVA 681
Db 601 NGEVYIDKIELIPVTAPEYDLEAQEAVALFTNTNPERLKTDVTDYHDQVSNLVA 660

Qy 682 CLSDEFCLDEKRELLEYKAKRLSDERNLQDPNEFTSINKQPDFISTNEQSNFTSIEQ 741
Db 661 CLSDEFCLDEKRELLEYKAKRLSDERNLQDPNEFTSINKQPDFISTNEQSNFTSIEQ 720

Qy 742 SEHGNGWSNNTIQEENDVFKENYVTLPLGTFNECYPTYLQKIGESELKAYTRYQLRGYI 801
Db 721 SEHGNGWSNNTIQEENDVFKENYVTLPLGTFNECYPTYLQKIGESELKAYTRYQLRGYI 780

Qy 802 EDSQDPLETYLIRYNAKHETLIDVPGETSMPLSVESSPIGRGEPIRGCYPTFQDQIRTSGLSG 861
Db 781 EDSQDPLETYLIRYNAKHETLIDVPGETSMPLSVESSPIGRGEPIRGCYPTFQDQIRTSGLSG 840

Qy 862 RDGECAHHSHHFSDIDVGCTDLHENLGWVVFKITQKTOGHARLGNLEFEEKPLLGEA 921
Db 841 RDGECAHHSHHFSDIDVGCTDLHENLGWVVFKITQKTOGHARLGNLEFEEKPLLGEA 900

Qy 922 LSRYRAEKWKWRDKREKLOLETQVYTYTEKEAVDALFLVSDQYDLOADNIGNMHAADKL 981
Db 901 LSRYRAEKWKWRDKREKLOLETQVYTYTEKEAVDALFLVSDQYDLOADNIGNMHAADKL 960

Qy 982 VHRTRBEAIVSELVPVPGVNAEFEELGHIIITAISLYDARNVVNGDFNNGLTCVNVKGH 1041
Db 961 VHRTRBEAIVSELVPVPGVNAEFEELGHIIITAISLYDARNVVNGDFNNGLTCVNVKGH 1020

Qy 1042 VDVQOSHRSRDLVPEWEAEVSQAVRCPCGYTIRVTAKEGYGEGCVTIHEIENNTE 1101
Db 1021 VDVQOSHRSRDLVPEWEAEVSQAVRCPCGYTIRVTAKEGYGEGCVTIHEIENNTE 1080

Qy 1102 LKFKNRREEEYVPTGTCNDYTAHQGTTGACDANSRNAYEDEVDTTASNYNKPTY 1161
Db 1081 LKFKNRREEEYVPTGTCNDYTAHQGTTGACDANSRNAYEDEVDTTASNYNKPTY 1140

Qy 1162 BEETTIDVRRDNHCYDQGVYNNPPVPGVYVTKELEYFPETDTWIEGETGKRVDSV 1221
Db 1141 BEETTIDVRRDNHCYDQGVYNNPPVPGVYVTKELEYFPETDTWIEGETGKRVDSV 1200

Qy 1222 ELLIMEE 1228
Db 1201 ELLIMEE 1207

RESULT 4
US-08-459-594B-7
Sequence 7, Application US/08459504B
; General Information:
; Patent No. 6075185
; APPLICANT: Koziel, Michael G.
; APPLICANT: Desai, Nalini M.
; APPLICANT: Lewis, Kelly S.
; APPLICANT: Kramer, Vance C.
; APPLICANT: Warren, Gregory W.
; APPLICANT: Erola, Stephen V.
; APPLICANT: Crossland, Lyle D.
; APPLICANT: Wright, Martha S.
; APPLICANT: Merlin, Ellis J.
; APPLICANT: Launis, Karen L.
; APPLICANT: Rothstein, Steven J.
; APPLICANT: Bowman, Cindy G.
; APPLICANT: Dawson, John L.
; APPLICANT: Dunder, Erik M.
; APPLICANT: Pace, Gary M.
; APPLICANT: Suttie, Janet L.
; TITLE OF INVENTION: SYNTHETIC DNA SEQUENCE HAVING ENHANCED
; INSECTICIDAL ACTIVITY IN MAIZE
; NUMBER OF SEQUENCES: 94.
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: No. 607518arts Corporation
; STREET: 3034 Cornwallis Road
; CITY: Research Triangle Park
; STATE: NC
; COUNTRY: USA
; ZIP: 27709
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/459,504B
; FILING DATE:

CLASSIFICATION:
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/459,595
 FILING DATE: 02-JUN-1995
 APPLICATION NUMBER: US 07/951,715
 FILING DATE: 25-SEP-1992
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 07/772,027
 FILING DATE: 04-OCT-1991
 ATTORNEY/AGENT INFORMATION:
 NAME: Meigs, J. Timothy
 REGISTRATION NUMBER: 38,241
 REINSTATEMENT NUMBER: CGC1577/CIP/DIV
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (919) 541-0587
 TELEFAX: (919) 541-8689
 INFORMATION FOR SEQ ID NO: 7:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 1207 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 US - 08-459-504B-7

Qy Best Local Similarity 98.3%; Score 6405; DB 3; Length 1207;
 Matches 1206; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 22 MDLLPDAIREDSLCLAEAGNNIDPFSVASTYQTGINTAGRITLGVLGVFPGQLASFSFLV 81
 Db 1 MDLLPAPARIEDSLCLAEAGNNIDPFSVASTYQTGINTAGRITLGVLGVFPGQLASFSFLV 60

Qy 82 GELWPRGRDQMBIFLHEVQEQLINQQITENARNTALARLQIGDSSRAYQSLEDWLND 141
 D6 61 GELWPRGRDQMBIFLHEVQEQLINQQITENARNTALARLQIGDSSRAYQSLEDWLND 120

Qy 142 DARTSRLVHTOIALEDFNAMPFAIRHQEVPLMVQAANHLLLRDASLFGSEF 201
 Db 121 DARTSRLVHTQIALEDFNAMPFAIRHQEVPLMVQAANHLLLRDASLFGSEF 180

Qy 202 GLTSOBIQRYERQVERTDSDYCWEVWNTGLNSLRGTTAAASWRYNQFRDLTLGVLD 261
 Db 181 GLTSOBIQRYERQVERTDSDYCWEVWNTGLNSLRGTTAAASWRYNQFRDLTLGVLD 240

Qy 262 LVALPSYDRTPTPINTSAQLTREYTDAAIGATGYNMASKNNWNNAAPSAAEAAIRS 321
 Db 241 LVALPSYDRTPTPINTSAQLTREYTDAAIGATGYNMASKNNWNNAAPSAAEAAIRS 300

Qy 322 PHLDPLFQLTIFSASSRWNSTRMTYWRGHTIQSRPIGGLNTSTGHANTSINPVTLR 381
 Db 301 PHLDPLFQLTIFSASSRWNSTRMTYWRGHTIQSRPIGGLNTSTGHANTSINPVTLR 360

Qy 382 FASDRYRTESYAGVLMGTYLEPIHGVPVRNFNTNPONTSIDRGTAINTSQPYESPGLOL 441
 Db 361 FASDRYRTESYAGVLMGTYLEPIHGVPVRNFNTNPONTSIDRGTAINTSQPYESPGLOL 420

Qy 442 KDSETELPPETTERPNYESYSHRLSHIGTILQSRVNPYWSWTHSADRINTIGPNRITQ 501
 Db 421 KDSETELPPETTERPNYESYSHRLSHIGTILQSRVNPYWSWTHSADRINTIGPNRITQ 480

Qy 502 IPMVKASELPQGTTVRGPGTGGDILRINTGGFPIRVNGPLTORVIGFRYASTV 561
 Db 481 IPMVKASELPQGTTVRGPGTGGDILRINTGGFPIRVNGPLTORVIGFRYASTV 540

Qy 562 DFDEFFVSRRGGTTVNRFLRTMNSCDLKYGNFVRRAFTPFTFOIQDIRTSTQGLSG 621
 Db 541 DFDEFFVSRRGGTTVNRFLRTMNSCDLKYGNFVRRAFTPFTFOIQDIRTSTQGLSG 600

Qy 622 NGEVYLDKIELIPTVATEAYDLERAQEAVNALFTNTNRRLLTDYTHIDQVSNLVA 681
 Db 601 NGEVYLDKIELIPTVATEAYDLERAQEAVNALFTNTNRRLLTDYTHIDQVSNLVA 660

Qy 682 CLSDFCFLDERLEKVKYAKRLSDERNLQDPNFTSINKQPDFISTNEQSNTFSIHEQ 741

Db 661 CLSDFCFLDERLEKVKYAKRLSDERNLQDPNFTSINKQPDFISTNEQSNTFSIHEQ 720
 Qy 742 SERGWGSENITIOQNDVFKENTYLPGTFNECPTYLYQKIGSELKAYTRYOLRGYI 801
 Db 721 SERGWGSENITIOQNDVFKENTYLPGTFNECPTYLYQKIGSELKAYTRYOLRGYI 780
 Qy 802 EDSQOLEIYLIRYNAKHETLDVPCTESAMPLSVSPSAPIGRCEPNCAPAHFENPOLDSC 861
 Db 781 EDSQOLEIYLIRYNAKHETLDVPCTESAMPLSVSPSAPIGRCEPNCAPAHFENPOLDSC 840
 Qy 862 RDGECMAHSHFSIDIVGCTDLHENLGWVVFKITQEGHANGNLPEEKPLGEA 921
 Db 841 RDGECMAHSHFSIDIVGCTDLHENLGWVVFKITQEGHANGNLPEEKPLGEA 900
 Qy 922 LSRYVRAEKKWRDKEBKQLETRVTEAKEADLFVDSQYDRLQADNTIGMHAADKL 981
 Db 901 LSRYVRAEKKWRDKEBKQLETRVTEAKEADLFVDSQYDRLQADNTIGMHAADKL 960
 Qy 982 VHRIBEAYLSLPLVPGVNAIBIPEBLEIGHTITALSYDARNVYKQDFNGLTCWNVKGH 1041
 Db 961 VHRIBEAYLSLPLVPGVNAIBIPEBLEIGHTITALSYDARNVYKQDFNGLTCWNVKGH 1020
 Qy 1042 VDVQSHRSIDLVPEWEAEVSQAVRVCPCCGYLRLRTAYKEGYCEGCVTIHELENNTDE 1101
 Db 1021 VDVQSHRSIDLVPEWEAEVSQAVRVCPCCGYLRLRTAYKEGYCEGCVTIHELENNTDE 1080
 Qy 1102 LKFKNREEEEVPTGTCNDYTAHQTAGCADACNSRVAQYEDYEVDTTASYNKPTY 1161
 Db 1081 LKFKNREEEEVPTGTCNDYTAHQTAGCADACNSRVAQYEDYEVDTTASYNKPTY 1140
 Qy 1162 EEEYTDVRRDNHCFYDRGVVNYPVPAVGVTKELEYFPETDTWIEIGETEGKRVDSV 12221
 Db 1141 EEEYTDVRRDNHCFYDRGVVNYPVPAVGVTKELEYFPETDTWIEIGETEGKRVDSV 1200
 Qy 1222 ELLMEE 1228
 Db 1201 ELLMEE 1207

RESULT 5
 US - 08-459-444-7
 ; Sequence 7, Application US/08459444A
 ; General Information:
 ; PATENT NO. 6121014
 ; INVENTOR:
 ; Desai, Nalini M.
 ; Lewis, Kelly S.
 ; Kramer, Vance C.
 ; Warren, Gregory W.
 ; Evola, Stephen V.
 ; Crossland, Lyle D.
 ; Wright, Martha S.
 ; Merlin, Ellis J.
 ; Launis, Karen L.
 ; COUNTRY: USA
 ; ZIP: 27709
 ; COMPUTER READABLE FORM:
 ; MEDIM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: Patent Release #1.0, Version #1.30
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/459,444 A
 ; FILING DATE: 02-Jun-1995

CLASSIFICATION: <Unknown>

PRIOR APPLICATION DATA:

- APPLICATION NUMBER: US 07/951,715
- FILING DATE: 25 SEP 1992
- APPLICATION NUMBER: US 07/772,027
- FILING DATE: 04-OCT-1991

ATTORNEY/AGENT INFORMATION:

- NAME: Me-98, J. Timothy
- REGISTRATION NUMBER: 38,241
- REFERENCE DOCKET NUMBER: S-18805/P1/CGC1577/CIP/DIV6
- TELECOMMUNICATION INFORMATION:
- TELEPHONE: (919)511-8587
- TELEFAX: (919)541-8689
- INFORMATION FOR SEQ ID NO: 7:
- SEQUENCE CHARACTERISTICS:
- LENGTH: 1207 amino acids
- TYPE: amino acid
- TOPOLOGY: linear
- MOLECULE TYPE: protein
- SEQUENCE DESCRIPTION: SEQ ID NO: 7:
US-08-459-414-7

Query Match Score 98.3% ; Score 6405 ; DB 3 ; Length 1207 ;
Best Local Similarity 99.9% ; Prod. No. 0 ;
Matches 1206 ; Conservative 1 ; Mismatches 0 ; Indels 0 ; Gaps 0 ;

Qy 22 MDLUDPAIEDSLCIAEENNIDPFVSASTVQTGINAGRILGVGLGVFAGOLASPVSELY 81
Db 1 MDLUDPAIEDSLCIAEENNIDPFVSASTVQTGINAGRILGVGLGVFAGOLASPVSELY 60

Qy 82 GELWPRGRDQWEIFLHEVQLINQITENARTALARQGLGDSFRAYQQSLEDWLNRD 141
Db 61 GELWPRGRDQWEIFLHEVQLINQITENARTALARQGLGDSFRAYQQSLEDWLNRD 120

Qy 142 DARTRSVLHTOYIALEDFLNAMPLFAIRNQEVLMLMVQAQNHLILLRDASLGSEF 201
Db 121 DARTRSVLHTOYIALEDFLNAMPLFAIRNQEVLMLMVQAQNHLILLRDASLGSEF 180

Qy 202 GITSQEIQRYERQVERTRDSDYCWEWNTGLNSLRGTMNAWSWRYNQFRRLTUGVLD 261
Db 181 GITSQEIQRYERQVERTRDSDYCWEWNTGLNSLRGTMNAWSWRYNQFRRLTUGVLD 240

Qy 262 LVALFPSPYDTRYPPINTSAQLTREVTDAIGATGVNMASHWNYNNAAPSFAIEAAIRS 321
Db 241 LVALFPSPYDTRYPPINTSAQLTREVTDAIGATGVNMASHWNYNNAAPSFAIEAAIRS 300

Qy 322 PHLLDFLFLQLTIFSASSRWSNTRHMTWWRHTQSRSPIGGGLNTSTHGATNTSINPVTLR 381
Db 301 PHLLDFLFLQLTIFSASSRWSNTRHMTWWRHTQSRSPIGGGLNTSTHGATNTSINPVTLR 360

Qy 382 FASRDVYRTESAGVLLWGLEPIHGVPTRTENFNPNQNPISDRGTANQSOPYESPGLQL 441
Db 361 FASRDVYRTESAGVLLWGLEPIHGVPTRTENFNPNQNPISDRGTANQSOPYESPGLQL 420

Qy 442 KDSETELPPETTERPYNEYSYSHRLSHIGIIQLQRSYNVPVSWTHSADRNTTGNRITQ 501
Db 421 KDSETELPPETTERPYNEYSYSHRLSHIGIIQLQRSYNVPVSWTHSADRNTTGNRITQ 480

Qy 502 IPMVKASELPQSTTVRGFGPIRRTVNGPLTORYRIGFRYASTV 561
Db 481 IPMVKASELPQSTTVRGFGPIRRTVNGPLTORYRIGFRYASTV 540

Qy 562 DDFEFFVSRGGTTVNNFRFLRTMNSGDEBKYGNFVRRAFTTPPTFOIQDITRTSGHSG 621
Db 541 DDFEFFVSRGGTTVNNFRFLRTMNSGDEBKYGNFVRRAFTTPPTFOIQDITRTSGHSG 600

Qy 622 NGEVYIDKIELIPIVTAFFEAYDLEBRAQEAVNALFTNTNPRRLTDYDQVSNLVA 681
Db 601 NGEVYIDKIELIPIVTAFFEAYDLEBRAQEAVNALFTNTNPRRLTDYDQVSNLVA 660

Qy 682 CLSDERCLDERELAKVKAKLSDERNLQDPNFTSINKQPDFISTMEQSNTSIIHQ 741
Db 661 CLSDERCLDERELAKVKAKLSDERNLQDPNFTSINKQPDFISTMEQSNTSIIHQ 720

Qy 742 SEHGWGSENITIQCNDVFKENYTTLPGTFNECPTYLYQKIGSESELKAYTRYQURGYI 801
Db 721 SEHGWGSENITIQCNDVFKENYTTLPGTFNECPTYLYQKIGSESELKAYTRYQURGYI 780

Qy 802 EDSQDLEIYLTRYNAKGHTEDVPGTSLWPLSVEPIGRCEPNCAPHFEMNPDLDCSC 861
Db 781 EDSQDLEIYLTRYNAKGHEILDVGTESLNPLSVEPIGRCEPNCAPHFEMNPDLDCSC 840

Qy 862 RDGECAHHSHHSFSDLIDIVGCTDLHENLGWVVFPIKTOEGHARIGNLBEFEEKPLGEA 921
Db 841 RDGECAHHSHHSFSDLIDIVGCTDLHENLGWVVFPIKTOEGHARIGNLBEFEEKPLGEA 900

Qy 922 LSRVKRAEKWDRKBEKLOLFTKRYTYTEKEAVDALFDVSQYDRLQADNIGNMHAADKL 981
Db 901 LSRVKRAEKWDRKBEKLOLFTKRYTYTEKEAVDALFDVSQYDRLQADNIGNMHAADKL 960

Qy 982 VHRIREAYLSELPLPVGVMABIEFELGHITASLYDARVVNGDFNGLTCWNVKGH 1041
Db 961 VHRIREAYLSELPLPVGVMABIEFELGHITASLYDARVVNGDFNGLTCWNVKGH 1020

Qy 1042 VDQSQSHHRSRDLVFEWEARSQAVRVCPCGYTIRVTAKEYGEGCVTIHEENNTDE 1101
Db 1021 VDQSQSHHRSRDLVFEWEARSQAVRVCPCGYTIRVTAKEYGEGCVTIHEENNTDE 1080

Qy 1102 LKFKNREEEYVPTGTGNDYTAHQTAGCADCANSRNGAYEADYEVDTTASNYKPTY 1161
Db 1081 LKFKNREEEYVPTGTGNDYTAHQTAGCADCANSRNGAYEADYEVDTTASNYKPTY 1140

Qy 1162 EEETYTDVRRDNHCEYDRGYNVNPBPVPGYVTKLEYFRETDTWIEGETGKFIYDVS 1221
Db 1141 EEETYTDVRRDNHCEYDRGYNVNPBPVPGYVTKLEYFRETDTWIEGETGKFIYDVS 1200

Qy 1222 ELLIMEE 1228
Db 1201 ELLIMEE 1207

RESULT 6
US-09-057-549-B
; Sequence 8, Application US/09053549
; Patent No. 6121521
; GENERAL INFORMATION:
; APPLICANT: Desai, Nalini
; TITLE OF INVENTION: No. 6121521el Insecticidal Protein and Gene
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: No. 6121521artis Corporation
; STREET: 3054 Cornwallis Rd.
; CITY: Research Triangle Park
; STATE: NC
; COUNTRY: USA
; ZIP: 27709
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/053,549
; FILING DATE: 01-APR-1998
; CLASSIFICATION: 800
; ATTORNEY/AGENT INFORMATION:
; NAME: Pace, Gary M.
; REGISTRATION NUMBER: 40,403
; REFERENCE/DOCKET NUMBER: CGC 1995
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 919-541-8582
; TELEFAX: 919-541-8689
; INFORMATION FOR SEQ ID NO: 8:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1207 amino acids
; TYPE: amino acid

TOPOLOGY: linear
 MOLECULE TYPE: protein
 US-09-053-549-8

Query Match 98.3%; Score 6405; DB 3; Length 1207;
 Best Local Similarity 99.9%; Pred. No. 0;
 Matches 1206; Conservative 1; Mismatches 0; Gaps 0;

Qy 22 MDLLPARDIEDSLCIAEGNNIDPFVSASTVTGINTAGRILGVLYPFAGOLASPFVY 81
 Db 1 MDLLPARDIEDSLCIAEGNNIDPFVSASTVTGINTAGRILGVLYPFAGOLASPFVY 60

Qy 82 GELWPRGRDQEFILEHVEQLINQQTENANTALARLQLGDSRAYQSLEDMLNRD 141
 Db 61 GELWPRGRDQEFILEHVEQLINQQTENANTALARLQLGDSRAYQSLEDMLNRD 120

Qy 142 DARTRSYLHTOIALEDFNAMPLFAIRNOEVPLIMVYAGAAHLLLRDASLFGSEF 201
 Db 121 DARTRSYLHTOIALEDFNAMPLFAIRNOEVPLIMVYAGAAHLLLRDASLFGSEF 180

Qy 202 GLTSOEIQRYYERQVERTRDSDYCWEYNTGLNSLRGTNAASWRYNQNPFRDLTGVL 261
 Db 181 GLTSQEIQRRYYERQVERTRDSDYCWEYNTGLNSLRGTNAASWRYNQNPFRDLTGVL 240

Qy 262 LVALFPSSYDRTYPINTSAQLTREVTDAIGATGYNMASHWNNAAPSSAIEAAIRS 321
 Db 241 LVALFPSSYDRTYPINTSAQLTREVTDAIGATGYNMASHWNNAAPSSAIEAAIRS 300

Qy 322 PHLDPLQLTIFSASSRWSNTRHTMTRYWRGHTIOSRPIGGGLNTSTHGATNTSINPVTLR 381
 Db 301 PHLDPLQLTIFSASSRWSNTRHTMTRYWRGHTIOSRPIGGGLNTSTHGATNTSINPVTLR 360

Qy 382 FASRDVYRTESYAGVILWGLYLEPTHPVTPYRFENFTNPONTSDRCTANYTQPYESPGLQL 441
 Db 361 FASRDVYRTESYAGVILWGLYLEPTHPVTPYRFENFTNPONTSDRCTANYTQPYESPGLQL 420

Qy 442 KDSSETLPPETERPNYEYSKSHRLSHIGIIQSRVNPVTSWTHSADRINTIGNRITQ 501
 Db 421 KDSSETLPPETERPNYEYSKSHRLSHIGIIQSRVNPVTSWTHSADRINTIGNRITQ 480

Qy 502 IPMVKASELPLQGTTVYRGPGFTGGDILRRTNTGGFPIRTVNGPLTQYRIGFRYASTV 561
 Db 481 IPMVKASELPLQGTTVYRGPGFTGGDILRRTNTGGFPIRTVNGPLTQYRIGFRYASTV 540

Qy 562 DDFEFFYSGGGTYVNNFRFLRTMNSGDELKYGKFNVRRAFPTPRTFOIQLIRTSGLSG 621
 Db 541 DDFEFFYSGGGTYVNNFRFLRTMNSGDELKYGKFNVRRAFPTPRTFOIQLIRTSGLSG 600

Qy 622 NGEVYIDKIELIPPTATPEAYDLEQAQNVALFTNTPRLKTDTVDYHDQVSNLVA 681
 Db 601 NGEVYIDKIELIPPTATPEAYDLEQAQNVALFTNTPRLKTDTVDYHDQVSNLVA 660

Qy 682 CLSDEFCLDEKRILLEKVAKRLSDERNLQDPNFTSIKQPDF1STNEOSNFTSIHEQ 741
 Db 661 CLSDEFCLDEKRILLEKVAKRLSDERNLQDPNFTSIKQPDF1STNEOSNFTSIHEQ 720

Qy 742 SEHGWGNSENTTQEQNDVKENYVMTLPGTNECYPTLYOKIGESELKAYTRYLGYI 801
 Db 721 SEHGWGNSENTTQEQNDVKENYVMTLPGTNECYPTLYOKIGESELKAYTRYLGYI 780

Qy 802 EDSQDLEIYLRYNAKETLDPGTESLWPLSVSPIGRCCEPNRCAPIHEWNPDLDSC 861
 Db 781 EDSQDLEIYLRYNAKETLDPGTESLWPLSVSPIGRCCEPNRCAPIHEWNPDLDSC 840

Qy 862 RDGEKAHHSHHSFHSFSLQDVGCTDHLNGLWVVFKIKTQECHARLGNLFEEKPLGEA 921
 Db 841 RDGEKAHHSHHSFHSFSLQDVGCTDHLNGLWVVFKIKTQECHARLGNLFEEKPLGEA 900

Qy 922 LSRVKAEEKKWDKREKLQLETKRYTEAKEAVDALFDVSDQYDRLQADTNGMTHAADKL 981
 Db 901 LSRVKAEEKKWDKREKLQLETKRYTEAKEAVDALFDVSDQYDRLQADTNGMTHAADKL 960

Qy 982 VHRIREALYSELVPVGNAAIEFELEGHITAISLYDARNVVKNGDFNNGLTCMWNVKGH 1041

Db 961 VHRIREALYSELVPVGNAAIEFELEGHITAISLYDARNVVKNGDFNNGLTCMWNVKGH 1020

Qy 1042 VDVQSHHRSPLVIBWEAEVSQATVCPGCVYIIRVTAKEVGGCVTHEIENNTDE 1101
 Db 1021 VDVQSHHRSPLVIBWEAEVSQATVCPGCVYIIRVTAKEVGGCVTHEIENNTDE 1080

Qy 1102 LKFQFREEEVYPTDGTCDNTYTAHQTAGCADACNSRNAYEDAYEVDTASVNYKPTY 1161
 Db 1081 LKFQFREEEVYPTDGTCDNTYTAHQTAGCADACNSRNAYEDAYEVDTASVNYKPTY 1140

Qy 1162 EBETYTDVDRDNHCYDRGYNVNPVPAVGTVKELYFPPTDVTWIEIGTECKFIVDVS 1221
 Db 1141 EBETYTDVDRDNHCYDRGYNVNPVPAVGTVKELYFPPTDVTWIEIGTECKFIVDVS 1200

Qy 1222 ELLMEB 1228
 Db 1201 ELLMEB 1207

RESULT 7
 US-09-547-422-7
 Sequence 7, Application US/09547422
 Patent No. 6320100
 GENERAL INFORMATION:
 APPLICANT: Koziel, Michael G.
 Desai, Nalin M.
 Lewis, Kelly S.
 Kramer, Vance C.
 Warren, Gregory W.
 Evola, Stephen V.
 Crossland, Lyle D.
 Wright, Martha S.
 Merlin, Ellis J.
 Launis, Karen L.

TITLE OF INVENTION: SYNTHETIC DNA SEQUENCE HAVING ENHANCED
 INSECTICIDAL ACTIVITY IN MAIZE

NUMBER OF SEQUENCES: 94
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: No. 6320100arris Agribusiness Biotechnology Research, Inc.
 STREET: 3054 Cornwallis Road
 CITY: Research Triangle Park
 STATE: NC
 COUNTRY: USA
 ZIP: 27709
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS MS-DOS
 SOFTWARE: PatentIn Release #1.0, Version #1.3.0
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/09/547,422
 FILING DATE: 11-Apr-2000
 CLASSIFICATION: <Unknown>
 PRIORITY APPLICATION DATA:
 APPLICATION NUMBER: US 08/459,595
 FILING DATE: 02-JUN-1995
 APPLICATION NUMBER: US 07/951,715
 FILING DATE: 25-SEP-1992
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS
 SOFTWARE: PatentIn Release #1.0, Version #1.3.0
 ATTORNEY/AGENT INFORMATION:
 NAME: Meiss, J. Timothy
 REGISTRATION NUMBER: 38,241
 REFERENCE DOCKET NUMBER: S-19805H
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (919)541-8687
 TELEFAX: (919)541-8689
 INFORMATION FOR SEQ ID NO: 7:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 1207 amino acids
 TYPE: amino acid
 TOPOLOGY: linear

Db 121 GLGDSPRAYQQSLDMLNRDDARTSVLYTQYIAELDFNAMPLFLAIRNEVPLLMTY 180
 Qy 181 AQAANHLIILJLRLDASLFGSERGLTSOBIIORYERQVERTDYSDYCVENTNTGLNSLRGT 240
 Db 181 AQAANHLIILJLRLDASLFGSERGLTSOBIIORYERQVERTDYSDYCVENTNTGLNSLRGT 240
 Qy 241 NAASWTRYNQFRDLTLGVLDFLVALFPSYDTRTPINTSQLTREVTDAIGATGVNMS 300
 Db 241 NAASWTRYNQFRDLTLGVLDFLVALFPSYDTRTPINTSQLTREVTDAIGATGVNMS 300
 Qy 301 MNWYNNAAPSATEAAAIRSPHLLDFEQLTIFSSASSRNSNTREMTYWRGHTIOSRPIC 360
 Db 301 MNWYNNAAPSATEAAAIRSPHLLDFEQLTIFSSASSRNSNTREMTYWRGHTIOSRPIC 360
 Qy 361 GGLNTSTHGAGNTSINPVTIURFAASRDVYRTESYASGLWCGYLEPLTHGYPTVRFNTNPQ 420
 Db 361 GGLNTSTHGAGNTTINPVTRUFASRDVYRTESYASGLWCGYLEPLTHGYPTVRFNTNPQ 420
 Qy 421 NISDRSTANYSOYESPGLQKDSETELPETTERPNYESYSHRLSHIGILQSRVNVPV 480
 Db 421 NISDRSTANYSOYESPGLQKDSETELPETTERPNYESYSHRLSHIGILQSRVNVPV 480
 Qy 481 YSWTHRSADRINTGPNRTOIIPMVKASELPGQTTVRGPGFTGGDILRLRTNTGGFGPVR 540
 Db 481 YSWTHRSADRINTGPNRTOIIPMVKASELPGQTTVRGPGFTGGDILRLRTNTGGFGPVR 540
 Qy 541 VTVNGPLTORYRIGFYAYSTDFFVSRSGSTTNNFRFRTMNSGDELKYGKGNFVRRAFT 600
 Db 541 VTVNGPLTORYRIGFYAYSTDFFVSRSGSTTNNFRFRTMNSGDELKYGKGNFVRRAFT 600
 Qy 601 TPFTTFOIQDQIIRTSLOGLSNGEYVYDKEBIIIPVTTAEAYDLERAOBAVNALFTNTN 660
 Db 601 TPFTTFOIQDQIIRTSLOGLSNGEYVYDKEBIIIPVTTAEAYDLERAOBAVNALFTNTN 660
 Qy 661 PRRLLKTDVTDYHIDQVSNLVACLSDFECLDEKRELKVAKRLSDERNLQDENFTSI 720
 Db 661 PRRLLKTDVTDYHIDQVSNLVACLSDAFCLDERKRELKVAKRLSDERNLQDENFTSI 720
 Qy 721 NKOPDFISTNEQSNTFSIHESEHGWGSNTITIOEGNDVFKENYVTLPGTENECRYPTYL 780
 Db 721 NKOPDFISTNEQSNTFSIHESEHGWGSNTITIOEGNDVFKENYVTLPGTENECRYPTYL 780
 Qy 781 YOKIGSESELKAYTRYOLRGTYIEDSODLEKLILIRYNAKHTEDVPTESTSMLPLSVEPIGR 840
 Db 781 YOKIGSESELKAYTRYOLRGTYIEDSODLEKLILIRYNAKHTEDVPTESTSMLPLSVEPIGR 840
 Qy 841 CGEPNRCAPHPFEWNPDLCSDRGEXKAHHSHFSLDIVGCTDLHENLGWVWYFKIKTQ 900
 Db 841 CGEPNRCAPHPFEWNPDLCSDRGEXKAHHSHFSLDIVGCTDLINEDLGWVWYFKIKTQ 900
 Qy 901 EGHARLGNLFTEEKPLGEALSRYKRAEKKWDRKREKIQLETKRVYRAKEADALFD 960
 Db 901 DGHARLGNLFTEEKPLGEALSRYKRAEKKWDRKREKIQLETKRVYRAKEADALFD 960
 Qy 961 SOYDLOADTINIGIHAADLKLVRREALYVSELPVIGNAAIFPEBLEIGHITAIISLYDA 1020
 Db 961 SOYDLOADTINIGIHAADLKLVRREALYVSELPVIGNAAIFPEBLEIGHITAIISLYDA 1020
 Qy 1080 AKYKEGYGEGCYTIHLENNTDELKFQKREBEEVYPTDTGTCNDYTA--HOQTAGCADA 1135
 Db 1081 AKYKEGYGEGCYTIHLENNTDELKFQKREBEEVYPTDTGTCNDYTA--HOQTAGCADA 1135
 Qy 1136 CNSRNQAYDAYEVDTTASNYKPYEEYTIDVERDNHCEYDGRSYVNPPVAGYVTK 1195
 Db 1135 YTSRNRGYYDGRAYESSSSVPAODYASAYEERKAYTDGRDNPCESNRGYGDTPLAGYVTK 1194
 Qy 1196 LEYFPETDTWYIEGETEGKPIVDSYELLMEE 1228
 Db 1195 LEYFPSTDKWYIEGETEGKPIVDSYELLMEE 1227
 RESULT 9
 US-08-10-709-4
 Sequence 4, Application US/08100709.
 Patent No. 5322687
 GENERAL INFORMATION:
 APPLICANT: Donovan, William P.
 APPLICANT: Tan, Yaping
 APPLICANT: Jany, Christine S.
 APPLICANT: Gonzalez Jr., Jose M.
 TITLE OF INVENTION: BACILLUS THURINGIENSIS CRYPT4 AND CRYPT5
 TITLE OF INVENTION: TOXIN GENES AND PROTEINS TOXIC TO LEPIDOPTERAN INSECTS
 NUMBER OF SEQUENCES: 5
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: Panitch Schwarze Jacobs & Nadel c/o A.S.
 STREET: 1601 Market Street, 36th Floor
 CITY: Philadelphia
 STATE: Pennsylvania
 COUNTRY: U.S.A.
 ZIP: 19103
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: PatentIn Release #1.0, Version #1.25
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/100,709
 FILING DATE: 1993/07/29
 CLASSIFICATION: 514
 ATTORNEY/AGENT INFORMATION:
 NAME: Egolf, Christopher
 REGISTRATION NUMBER: 27633
 REFERENCE/DOCKET NUMBER: 7205-4-9
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 215-757-1590
 INFORMATION FOR SEQ ID NO: 4:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 1229 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 US-08-10-709-4
 Query Match 83.1%; Score 5413.5; DB 1; Length 1229;
 Best Local Similarity 82.6%; Pred. No. 0;
 Matches 1021; Conservative 74; Mismatches 126; Indels 15; Gaps 6;
 Qy 1 LTSRKRNNEIINA-----VNSHSAQMIDLQDARIEDSCLTAEGNIDPFPVSASTVQGT 55
 Db 1 LTSRKRNNEIINAISIPIVSNPBTQMNISPDARIEDSCLVAEYNINIDPFPVSASTVQGT 60
 Qy 56 NIAGRILGVLGVPPAGOLASFYSPYVGELEMGRGDQWEIPLERVBLQINQQTENARNTA 115
 Db 61 NIAGRILGVLGVPPAGOLASFYSPYVGELEMGRGDQWEIPLERVBLQINQQTENARNTA 120
 Qy 116 LARLGLGHSFRAYQSLLEDWLNRDDARTSVLHTOTIAELDFNAMPFLAIRNQEYV 175
 Db 121 IARLGLGGRYRSTQQALETWLDRNDRARSSTILERVALELDITTAIPFLRNEEYV 180
 Qy 176 LIMMYAQAAANTHLJLRLDASLFGSEGLTSQEIQRYYERQVERTDYSDYCVENTNTGLN 235
 Db 181 LLMYAQAAANTHLJLRLDASLFGSEGLTSQEIQRYYERQVERTDYSDYCVENTNTGLN 240
 Qy 236 SLRGTAASWRYNQFRDLTLGVDLYALFPSTDTTPINTSAQLTREVYTAIGATG 295
 Db 241 NLRGTAASWRYNQFRDLTLGVDLYALFPSTDTTPINTSAQLTREVYTAIGATG 300
 Qy 296 V--NMASWYNNNAPNSFAEIAAIRSPHLLDFEQLTIFSAASRWNTMHTYWRGHT 353
 Db 301 APSGFASTNWNNNAPSPSAIEAIFRPFLDPEQLTIVSASSRWSSTQHMYWVGRH 360

QY 354 IQSRPIGGGLNTSTHGAT-NTSINPVTLRFAASRDVRYTETSYAGVLLWGYLEPIHGVPTV 412 ; CORRESPONDENCE ADDRESS:
Db 361 LNFPPIGTNTNTSINPVTLRFAASRDVRYTETSYAGVLLWGYLEPIHGVPTV 418 ADDRESSEE: Panitch Schwarze Jacobs & Nadel c/o A.S.
QY 413 RFNFTNPNTSDRGNTANYSQPYESPGIQLQDSETELPPETERNPEYESYSHRLSHIGIIL 472 ADDRESSEE: Nadel
Db 419 RFNFINPNUVYEGATTYSQPYQVGVLQFDSETELPPETERNPEYESYSHRLSHIGIIL 478 STREET: 1601 Market Street, 36th Floor
CITY: Philadelphia
STATE: Pennsylvania
COUNTRY: U.S.A.
ZIP: 19103
COMPILER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC DOS/MS-DOS
SOFTWARE: Patent in Release #1.1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US 08/176,865
FILING DATE: 30-DEC-1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/100,709
FILING DATE: 29-JUL-1993
ATTORNEY/AGENT INFORMATION:
NAME: Egolf, Christopher
REGISTRATION NUMBER: 27633
TELECOMMUNICATION INFORMATION:
TELEPHONE: 215-757-1590
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 129 amino acids
TYPE: amino acid
TOPOLOGY: Linear
MOLECULE TYPE: protein
US 08-176-865-4

Query Match 83.1%; Score 5413.5;
Best Local Similarity 82.6%; Pred. No. 0;
Matches 1021; Conservative 74; Missmatches 126; Indels 15; Gaps 6;

Qy 593 NFYPRRAFTPFPFTQIQQIIRPSIQGSGNGEVYIDKEIIPVTAPEAYDLERAQEA 652
Db 599 SFRTAGFSTPENFLNAQSTFLGAQSSE-NQEVYIDRVEFYPAEVTFEAEDLERAQKA 657
Qy 653 NALFTNTNPRRLKTDVTYHIDOVSNLVACLSDEFCLDEKRELLKVKYAKRLSDERNLL 712
Db 658 NALFTSTNPRLKTDVTYHIIQVSNNVACLSDEFCLDEKRLFEKVYAKRLSDERNLL 717
Qy 713 QDPNFTSINKQDPDFISTNEQMSNFTSTHEOSEHGWGMSENITIQCENDVFEKENVUTLPCTF 772
Db 718 QDPNFTFSQGSLQASIDGQSNPSPNIBLSEGEWGSANVTFQEGNDVFKENVUTLPCTF 777
Qy 773 NECPYTYIYQKIGESELKAYTRYQLGWYIEDSQDLEYLIRYNAKHTLDVPGTBSLWPL 832
Db 778 NECPYNYIYQKIGESELKAYTRYQLGWYIEDSQDLEYLIRYNAKHTLDVPGTBSLWPL 837
Qy 833 SVESPICRGCEPNRCAPHEFWNPDLDCSQRDGEKAHHSHFSLDIDVGCTDLHENLGW 892
Db 838 SVESPICRGCEPNRCAPHEFWNPDLDCSQRDGEKAHHSHFTLDD.DVGCTDLHENLGW 897
Qy 893 VYFKIKTCGEGHARLGNLFIERKPLGEALSIVKRAEKWEDKREKLQLETKRYTEAKE 952
Db 898 VYFKIKTCGEGHARLGNLFIERKPLGEALSIVKRAEKWEDKREKLQLETKRYTEAKE 957
Qy 953 AVDALFYDSDQYDRQADTNIGMIHAADKLVHRIREAYLSELPEVNAELFEELEGHI 1012
Db 958 AVDALFYDSDQYDQADTNIGMIHAADKLVHRIREAYLSELPEVNAELFEELEGHI 1017
Qy 1013 TAISLYDARNVYKNGDPNGLTCAWVKGHDVQQSIIHRSIDLVIPEWAEVSAVRVCPGC 1072
Db 1018 TAMSLYDARNVYKNGDPNGLTCAWVKGHDVQQSIIHRSIDLVIPEWAEVSAVRVCPGR 1077
Qy 1073 GTLRLRTAYKEGYEGEGCVTHIELENNTDELKFKNRREEEVYPTDGTCTNDYTAHOGTAGC 1132
Db 1078 GTLRLRTAYKEGYEGEGCVTHIELENNTDELKFKNCEBEEVPTDGTCTNDYTAHOGTA-- 1135
Qy 1133 ADACNSRNAGYEDAYDTTASVNYKTYEEBTYTDVDRDNHCEYDRGYTNYPVPGYV 1192
Db 1136 -ACNSRNAGYEDAYDTTASVNYKTYEEBTYTDVDRDNHCEYDRGYTNYPVPGYV 1193
Qy 1193 TKELEYRPETDWIYEGETECKFIVDSVELLMEE 1228
Db 1194 TKELEYRPETDWIYEGETECKFIVDSVELLMEE 1229
Qy 296 V-NMASMWNYYNAPSAEIAAAIRSPHLLDEQLTIFSASSRWSNTRMTYWRGHT 353
Db 301 APSGFASTWNNNAPSAEIAAFRPHLLDEPQLTTSVRSSTQHMYWVGRH 360
Qy 354 IQRSEIGGLNTSTHGAT-NTSINPVTLRFAASRDVRYTETSYAGVLLWGYLEPIHGVPTV 412
Db 361 LNFRFNGGNTNTSINPVTLQFTSVDVYTESNAGTNI-LFTTPNGVPM 418
GENERAL INFORMATION:
Patent No. 5616319
Applicant: Donovan, William P.
Applicant: Tan, Yiping
Applicant: Jany, Christine S.
Applicant: Gonzalez, Jose M.
Title of Invention: BACILLUS THURINGIENSIS CRYET4 AND CRYET5
Title of Invention: TOXIN GENES AND PROTEINS TOXIC TO LEPIDOPTERAN INSECTS
Number of Sequences: 5

RESULT 10
US-08-176-865-4
1 Sequence 4, Application US/08176865
1 Patent No. 5616319
1 GENERAL INFORMATION:
1 Applicant: Donovan, William P.
1 Applicant: Tan, Yiping
1 Applicant: Jany, Christine S.
1 Applicant: Gonzalez, Jose M.
1 Title of Invention: BACILLUS THURINGIENSIS CRYET4 AND CRYET5
1 Title of Invention: TOXIN GENES AND PROTEINS TOXIC TO LEPIDOPTERAN INSECTS
1 Number of Sequences: 5

OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patent In Release #1.0, Version #1.25
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/474,038
 FILING DATE: 07-JUN-1995
 CLASSIFICATION: 514
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/176,865
 FILING DATE: 30-DEC-1993
 APPLICATION NUMBER: US 08/100,709
 FILING DATE: 29-JUL-1993
 ATTORNEY/AGENT INFORMATION:
 NAME: EgoLi, Christopher
 REGISTRATION NUMBER: 27633
 REFERENCE/DOCKET NUMBER: 7205-49
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 215-757-1590
 INFORMATION FOR SEQ ID NO: 4:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 1229 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 US-08-474-038-4

Query	Subject	Start	End	Length	Score	DB 1;	DB 2;
Qy	533 TCGFGPIRVTYNGPLTORYRGFRVASTVDFFVSRGGTIVNNFRFLRTMNSGDELKG 592				83.1%	5413.5	
Db	539 TGTGFDRLNNVPLSQRYRIRYASTDQFFTRINGTIVNNFRFLRTMNSGDELKG 598				82.6%	Pred. No. 0;	
Qy	593 NFVRRAFTPTPTQIQQDIIRTSIQGLSGNGEVYDKIEIIPVTAFFEAEDLERAQEA 652				74;	Missmatches	126;
Db	599 SFRTAGFSTPENFLNQASTFTLGAQSFS-NQEYIDRVEFPVAEVTEAEDLERAQAV 657						
Qy	653 NALFTINPNRRAKTDVTDHLDQSVNLVACUSDEFCLDEBLLERKVAKRLSDERNLL 712						
Db	658 NALFTSTNPRLKTDVTDHLDQSVNLVACUSDEFCLDEBLLERKVAKRLSDERNLL 717						
Qy	713 QDPNFTSINKOPDFISTNEQSNFTSIEQSEHGWGSENITIQEGNDVFKENYVTLPGTF 772						
Db	718 QDPNFTPIFGQLSFASTDQGNFPSINELSHGWGNSANVNTIQEGNDVFKENYVTLPGTF 777						
Qy	773 NECYPYLYQKIGESELKAYTRYQOLGYIEDSQDLBIYLIRYNAKGETLDPGTESIWL 832						
Db	778 NECYPNLYQKIGESELKAYTRYQOLGYIEDSQDLBIYLIRYNAKGETLDPGTDSLWPL 837						
Qy	833 SVESPICRGCGPNRCAPHEPNPLDSCRCGEKAHHSHFTLDVGCTDLHNLGW 892						
Db	838 SVESPICRGCGPNRCAPHEPNPLDSCRCGECAHHSHFTLDVGCTDLHNLGW 897						
Qy	893 VVFKIKTQEGHARLGNLFIREKPLJGEALSRVRAEKWDRKREKLQLETKRYTEAKS 952						
Db	898 VVFKIKTQEGHARLGNLFIREKPLJGEALSRVRAEKWDRKREKLQLETKRYTEAKS 957						
Qy	953 AVDALEFVDSQYDRLOADNIGMHAADKLVHRIEAYLSELSPVCPVNABIEELEGHII 1012						
Db	958 AVDALEFVDSQYDQLQADNIGMHAADKLVHRIEAYLSELSPVCPVNABIEELEGHII 1017						
Qy	1013 TAISLIDYARNVYKNGDFNGLTCWNYKGHDVQOSHRSDIVPEVATESQAVRVCPC 1072						
Db	1018 TAISLIDYARNVYKNGDFNGLTCWNYKGHDVQOSHRSDIVPEVATESQAVRVCGR 1077						
Qy	1073 GYLRYTAYKECYGEGCVTIIEIENNTELEKPKNREEEEVYPTDGTCDNDYTAHOGTAGC 1132						
Db	1078 GYLRYTAYKEGYGEGCVTIIEIENNTELEKPKNREEEEVYPTDGTCDNDYTAHOGTA -- 1135						
Qy	1133 ADACNSRNAGYEDAYEVDTTASVNVYKPTYERETYTDVRDRNHCYDRGTYNPPVAGTV 1192						
Db	1136 -ACNSRNAGYEDAYEVDTTASVNVYKPTYERETYTDVRDRNHCYDRGTYNPPVAGTV 1193						
Qy	1193 TKELEYFPETDVWIEIGETEGKF1VDSVELLME 1228						
Db	1194 TKELEYFPETDVWIEIGETEGKF1VDSVELLME 1229						
RESULT 11							
US-08-474-038-4	Sequence 4, Application US/08474038						
	Patent No. 5679343						
	GENERAL INFORMATION:						
	APPLICANT: Donovan, William P.						
	APPLICANT: Tan, Yiping						
	APPLICANT: Gonzalez Jr., Jose M.						
	TITLE OF INVENTION: BACILLUS THURINGIENSIS CRYETA AND CRYET5						
	TITLE OF INVENTION: TOXIN GENES AND PROTEINS TOXIC TO LEPIDOPTERAN INSECTS						
	NUMBER OF SEQUENCES: 5						
	CORRESPONDENCE ADDRESS:						
	ADDRESSEE: Panitch Schwarze Jacobs & Nadel c/o A.S.						
	ADDRESSSEE: Nadel						
	STREET: 1601 Market Street, 36th Floor						
	CITY: Philadelphia						
	STATE: Pennsylvania						
	COUNTRY: U.S.A.						
	ZIP: 19103						
	COMPUTER READABLE FORM:						
	MEDIUM TYPE: Floppy disk						
	COMPUTER: IBM PC compatible						

Page 12

Y 653 NALPTNTNPRRLKTDVTYDHYDQVSNLVACLSDEFCLDEKRELFKYAKRLSDERNLL 712
 O 658 NALFTSTNPRRLKTDVTYDHYDQVSNNVACLSDEFCLDEKRELFKYAKRLSDERNLL 717
 Y 713 QDPNFTSINKQPDFTISTNEQSNTSIHFOSEHGMWSSENITIQEGNDVFKENYVTLPGTF 772
 O 718 QDPNFTFISGQLSPASIDQSNPPSINLSEHWWGSANVLTQEGNDVFKENYVTLPGTF 777
 Y 773 NECPTYLYOKIGSELKAYTRYVOLRGYIEDSQDLETLIRYNAKHTLDYVPGTESLWPL 832
 O 778 NECPNYLQOKIGSELKAYTRYVOLRGYIEDSQDLETLIRYNAKHTLDYVGTDSLWPL 837
 Y 833 SVESPPIGRGEPRCPAPFEEWNPDLCDCRGEKCAHSHFSLTDVGCTDLHENLGW 892
 O 838 SVESPPIGRGEPRCPAPFEEWNPDLCDCRGEKCAHSHFSLTDVGCTDLHENLGW 897
 Y 893 VVPKIKTQDEGHARLGNLBFEEKPLGLGEALSRYKAEEKKWRKREKQLETRKVTEAKE 952
 O 898 VVPKIKTQDEGHARLGNLBFEEKPLGLGEALSRYKAEEKKWRKREKQLETRKVTEAKE 957
 Y 953 AVDAFLFDVSDQYDRLQADNMGTHAADDLCLVHRIREAVLSELPLVIGYNAEIEFELECHI 1012
 O 958 AVDAFLFDVSDQYDRLQADNMGTHAADDLCLVHRIREAVLSELPLVIGYNAEIEFELECHI 1017
 Y 1013 TAISLYDARNVVKNGDFNGLLTWNVKHGHDVQOSHHSRSLTVPEWAEVSOAVRCPGC 1072
 O 1018 TAMSLYDARNVVKNGDFNGLLTWNVKHGHDVQOSHHSRSLTVPEWAEVSOAVRCGR 1077
 Y 1073 GYLRTVTAKEKGEGCWTIHELENNTDELKFKNREEREVYPTDTGTCNDYTAHOGTAGC 1132
 O 1078 GYLRTVTAKEKGEGCWTIHELENNTDLKFKNCEEEBVYPDTGTCNDYTAHOGTA-- 1135
 Y 1133 ADACNSRNGYEDSYEVDTTASNYKPTEBETYDVRDNHCEYDGYVNYPVPGAYV 1192
 O 1136 -ACNSRNGYEDAYEVDTTASNYKPTEBETYDVRDNHCEYDGYVNYPVPGAYV 1193
 Y 1193 TKELEYFPETDTWIEIGGETEGKPIVDSEVLLMEE 1228
 O 1194 TKELEYFPETDTWIEIGGETEGKPIVDSEVLLMEE 1229

RESULT 12

S-08-779-046-4 Sequence 4, Application US/08779046
Patient No. 5854053

GENERAL INFORMATION:

APPLICANT: Donovan, William P.
Tan, Yuping
Jany, Christine S.

ATTORNEY/AGENT INFORMATION:

NAME: Ego, Christopher
REGISTRATION NUMBER: 27633
REFERENCE/DOCKET NUMBER: 7205-49
TELECOMMUNICATION INFORMATION:
TELEPHONE: 215-557-1590
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 1229 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: Protein

US-08-779-046-4

Query Match 83.1%; Score 5413.5; DB 2; Length 1229;
Best Local Similarity 82.6%; Pred. No. 0;
Matches 1021; Conservative 74; Mismatches 126; Indels 15; Gaps 6

Qy	1 LTSNRKNEETNA---VSNHSAOMDLIDPARDDSLCLAGNNIDPFPVSASTVQTGII 55
Db	1 LTSNRKNEETNA---VSNHSAOMDLIDPARDDSLCLAGNNIDPFPVSASTVQTGII 60
Qy	56 NIAGRITLGIVGVPFAQLASFYSPFLVGEMLPGRDOMEIFLEHVEOLINOQITENARNTA 115
Db	61 NIAGRITLGIVGVPFAQLASFYSPFLVGEMLPGRDOMEIFLEHVEOLINOQITENARNTA 120
Qy	116 LARLQGLGDSFRAYQOSLEDWLENDDARTSRSLVHTQYIALEBLDFINAMPLFAIRNQEVPA 175
Db	121 IARLQGLGDSFRAYQOSLEDWLENDDARTSRSLVHTQYIALEBLDFINAMPLFAIRNQEVPA 180
Qy	176 LLMVYQAANHLILRDLASLFGSEFGLTSEBIQYYEROVERTDYSDYCVCWNTGLN 235
Db	181 LLMVYQAANHLILRDLASLFGSEFGLTSEBIQYYEROVERTDYSDYCVCWNTGLN 240
Qy	236 SLRGTNAAASHWYRNQFRDLTGVLIDLVALFPSPYDRTTPYINTSAQLTREVYDIAIGATG 295
Db	241 NLRGTAESWYRNQFRDLTGVLIDLVALFPSPYDRTTPYINTSAQLTREVYDIAIGATG 300
Qy	296 V-NMASMWYNNNAPSFALEAAIRSPHILDFEQLTIPSASSRWSNTRHMTYHRGHT 353
Db	301 APSGFASTNWNNNAPSFALEAAIRSPHILDFEQLTIPSASSRWSNTRHMTYHRGHT 360
Qy	354 TOSRPIGGGLNTSTHGAT-NTSINPVPTLRFASRDYRTTESAGVLLGIYDPIRGPYPTV 412
Db	361 LNFRPIGTTLNSTQGLTNNTSINPVTLQFTSIRDYRTESAGTNI-LFTTPVNGWPWA 418
Qy	413 RFNFNTNPONISDRGTANYSOPYESPGIQLKDSETLPETTERPNEYSESHRSHIGIL 472
Db	419 RFNFNFQNPYIYERGATTYSOPQGVGQVQLQFQSETLPETTERPNEYSESHRSHIGIL 478
Qy	473 QSRVNPVYSWTHSADRNTTIGPNRBTQIPMVKAELPQGTTVURGPFTGGDILURRTN 532
Db	479 GNTLRAVVSWTHSADRNTTIGPNRTOPIVKALNLHSGVTVVGGPFTGGDILURRTN 538
Qy	533 TGGFPGPFRVYNTGPTORYIGFRYASTVDFDFVFSRGGTITVNNFRFLTRTMNSGDELKYG 592
Db	539 TGTFGDILRNINPVLSRYRIRYASTTDQFFTRINGTIVNFGSRMNRGDNEYLYR 598
Qy	593 NFVRRAFTPPTFTQIQQDIIRTISIQLSGNEVYIDKIEIIPVTAFFEAEDLERAEAV 652
Db	599 SPRTAGFSTPENFLNAQSTFTLGAQSF5 -NOEVYDVEFPAEVTEFEAEDLERAEAV 657
Qy	653 NALFTNTNPRRLKTDVTYDHYDQVSNLVACLSDEFCLDEKRELFKYAKRLSDERNLL 712
Db	658 NALFTSTNPRRLKTDVTYDHYDQVSNNVACLSDEFCLDEKRELFKYAKRLSDERNLL 717
Qy	713 QDFTNTSINKQPDFTISTNEQSNTSITHEQSEHGMWSSENITIQEGNDVFKENYVTLGTF 772
Db	718 QDNNFTFLSGQSFASLDGSNFPNSINLSEHWWGSANTIQEGNDVFKENYVTLGTF 777
Qy	773 NECPTYLYOKIGSELSKAYTRYQOLGYIEDSQDLEYLYTRYNAKHTLDYVGTEISLWPL 832
Db	778 NECPNYLQOKIGSELSKAYTRYQOLGYIEDSQDLEYLYTRYNAKHTLDYVGTEISLWPL 832

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 0/100,709
FILING DATE: 29-JUL-1993
PATENT NUMBER: 5,845,053
CLASSIFICATION: 435

APPLICATION NUMBER: US/08/779,046
FILING DATE: 06-JAN-1997
PATENT NUMBER: 5,854,053
CLASSIFICATION: 435

MOLECULE TYPE: protein

US-08-881-340-4

Query Match 83 1%; Score 5413.5; DB 2; Length 1229;

Best Local Similarity 82.6%; Pred. No. 0;

Matches 1021; Conservative 74; Mismatches 126; Indels 15; Gaps 6;

Qy 1 LTNRKNEENLINA----VSNHSQLMDILLPDAEEDSLLCTAEGNNIDPFVSASTVQG1 55

Db 1 LTNRKNEENLINA----VSNHSQLMDILLPDAEEDSLLCTAEGNNIDPFVSASTVQG1 55

Qy 2 VVFKIKTQEGRHLGNLFIEKPKLGEALSRVKRAEKWKDREKQLQLETKRYTEAKE 952

Db 2 VVFKIKTQEGRHLGNLFIEKPKLGEALSRVKRAEKWKDREKQLQLETKRYTEAKE 952

Qy 3 AVDALFVDSQYDQLQADTNIGHMHAADKLVRIREAVALSELVPIGVNAEPEELEGHI 1012

Db 3 AVDALFVDSQYDQLQADTNIGHMHAADKLVRIREAVALSELVPIGVNAEPEELEGHI 1012

Qy 4 NIAGRILGVLGVPPFAGOLASFYSPFLYGMSPRGRDOWEIFELVBOLINQOITEANRNTA 115

Db 4 NIAGRILGVLGVPPFAGOLASFYSPFLYGMSPRGRDOWEIFELVBOLINQOITEANRNTA 115

Qy 5 NIAGRILGVLGVPPFAGOLASFYSPFLYGMSPRGRDOWEIFELVBOLIRQVTENRNTA 120

Db 5 NIAGRILGVLGVPPFAGOLASFYSPFLYGMSPRGRDOWEIFELVBOLIRQVTENRNTA 120

Qy 6 LARLGQLGDSPRAYQOSLEDWLNLNDARTPSVLTQIALEDFDNAMPFAIRNQEV P 175

Db 6 LARLGQLGDSPRAYQOSLEDWLNLNDARTPSVLTQIALEDFDNAMPFAIRNQEV P 175

Qy 7 IARLEGIGRGRYSQALETLWNNDARSNSIIBERYVALELDTTAIPFRINBEVP 180

Db 7 IARLEGIGRGRYSQALETLWNNDARSNSIIBERYVALELDTTAIPFRINBEVP 180

Qy 8 1LMVYQAQAAHLHLJRDASLFGSGFGLTSOBIIQRYYERQVERTDSDYCUEWVNNTGLN 235

Db 8 1LMVYQAQAAHLHLJRDASLFGSGFGLTSOBIIQRYYERQVERTDSDYCUEWVNNTGLN 235

Qy 9 SLRGTMNAASWRYNGNQFRDLTGVDLVALPSYDTRTPINTSQLTREVTYDAIGATG 295

Db 9 SLRGTMNAASWRYNGNQFRDLTGVDLVALPSYDTRTPINTSQLTREVTYDAIGATG 295

Qy 10 NLRGTMAESWRYNGNQFRDLTGVDLVALPSYDTRTPINTSQLTREVTYDPIGRTN 300

Db 10 NLRGTMAESWRYNGNQFRDLTGVDLVALPSYDTRTPINTSQLTREVTYDPIGRTN 300

Qy 11 V--NRAASMYNNNNAPSFSATEAAATRSPHLDLDFEQLTFSASSRSWSNTRHMTWRGHT 353

Db 11 V--NRAASMYNNNNAPSFSATEAAATRSPHLDLDFEQLTFSASSRSWSNTRHMTWRGHT 353

Qy 12 APSPGFASATWNNNNAPSFSATEAAATRSPHLDLDFEQLTFSASSRSWSNTRHMTWRGHR 360

Db 12 APSPGFASATWNNNNAPSFSATEAAATRSPHLDLDFEQLTFSASSRSWSNTRHMTWRGHR 360

Qy 13 IQSRPIGGGLNTSTHGAT-NTSINPVTLRFASRDYRTTESYAGVLIWGYILEPHGVPTV 412

Db 13 IQSRPIGGGLNTSTHGAT-NTSINPVTLRFASRDYRTTESYAGVLIWGYILEPHGVPTV 412

Qy 14 LNFRPIGGTTNTSTGTLNTNSINPVTLQTSRDTYRTEENAGTNI-LFTTPVNCVPWA 418

Db 14 LNFRPIGGTTNTSTGTLNTNSINPVTLQTSRDTYRTEENAGTNI-LFTTPVNCVPWA 418

Qy 15 RENFNTPNPONISDRGANPNSOPESSGLQKDSETLPETTERPNYESKSHRLSHIGIL 472

Db 15 RENFNTPNPONISDRGANPNSOPESSGLQKDSETLPETTERPNYESKSHRLSHIGIL 472

Qy 16 RENFNTPNPONIYERGATTYSQPYOGVGIOLFDSETSLPPETTERPNYESKSHRLSHIGIL 478

Db 16 RENFNTPNPONIYERGATTYSQPYOGVGIOLFDSETSLPPETTERPNYESKSHRLSHIGIL 478

Qy 17 QSRVNVPVYEWTHRAADRNTTIGPRITQIPMKASELPOGTIVRGPITGGDILRRNT 532

Db 17 QSRVNVPVYEWTHRAADRNTTIGPRITQIPMKASELPOGTIVRGPITGGDILRRNT 532

Qy 18 TGGPSPITVNGPLTQYRIGFRASTYDFFYVSRCGTTVNNPREFLTMNSGDELKYG 592

Db 18 TGGPSPITVNGPLTQYRIGFRASTYDFFYVSRCGTTVNNPREFLTMNSGDELKYG 592

Qy 19 539 TGTFEDIRLNINVPSQRYVRIRASTTDQFFRINGTVNCONFSRSTMNRGILNEYR 598

Db 19 539 TGTFEDIRLNINVPSQRYVRIRASTTDQFFRINGTVNCONFSRSTMNRGILNEYR 598

Qy 20 NFVRRAFTTPFTFOIQDITRTSIGLSGNGEVYDKIEIIPVPTATFEABYDLEAQEV 652

Db 20 NFVRRAFTTPFTFOIQDITRTSIGLSGNGEVYDKIEIIPVPTATFEABYDLEAQEV 652

Qy 21 SFRTAGFSTPNFLNJAOSTFTLGAQSFS-NQEYDIDRVEVPAETTFFEAZYDLEAQAV 657

Db 21 SFRAGFSTPNFLNJAOSTFTLGAQSFS-NQEYDIDRVEVPAETTFFEAZYDLEAQAV 657

Qy 22 NALFNTNPRLKTWTYHIDQVNLVACLSDECCLDEKRELLKVKYAKRLSBNRL 712

Db 22 NALFNTNPRLKTWTYHIDQVNLVACLSDECCLDEKRELLKVKYAKRLSBNRL 712

Qy 23 QDPNFTSINKQPDF1STNEQSNTSISHEQSEHGMGSNTIOORGNDVFKENYVTLPGTF 772

Db 23 QDPNFTSINKQPDF1STNEQSNTSISHEQSEHGMGSNTIOORGNDVFKENYVTLPGTF 772

Qy 24 718 QDPNFTSINKQPDF1STNEQSNTSISHEQSEHGMGSNTIOORGNDVFKENYVTLPGTF 777

Db 24 718 QDPNFTSINKQPDF1STNEQSNTSISHEQSEHGMGSNTIOORGNDVFKENYVTLPGTF 777

Qy 25 NECYPTYLQKIGEBLKAVTRYQRCYIEDSQDIEYLIRYNACHETELDPVGTBSLWPL 832

Db 25 NECYPTYLQKIGEBLKAVTRYQRCYIEDSQDIEYLIRYNACHETELDPVGTBSLWPL 832

Qy 26 778 NECYPNLYQKIGESELKAVTRYQRCYIEDSQDIEYLIRYNACHETELDPVGTBSLWPL 837

Db 26 778 NECYPNLYQKIGESELKAVTRYQRCYIEDSQDIEYLIRYNACHETELDPVGTBSLWPL 837

Qy 27 833 SVESPGRCCBEPNRCAPIPHFWNPDDDCSCRDGEKCAHHSHIFSLDIDVGCTDLHNGLWV 892

Db 27 833 SVESPGRCCBEPNRCAPIPHFWNPDDDCSCRDGEKCAHHSHIFSLDIDVGCTDLHNGLWV 892

Qy 28 VVFKIKTQEGRHLGNLFIEKPKLGEALSRVKRAEKWKDREKQLQLETKRYTEAKE 952

Db 28 VVFKIKTQEGRHLGNLFIEKPKLGEALSRVKRAEKWKDREKQLQLETKRYTEAKE 952

Qy 29 893 VVFKIKTQEGRHLGNLFIEKPKLGEALSRVKRAEKWKDREKQLQLETKRYTEAKE 957

Db 29 893 VVFKIKTQEGRHLGNLFIEKPKLGEALSRVKRAEKWKDREKQLQLETKRYTEAKE 957

Qy 30 953 AVDALFVDSQYDRLQADTNIGMIAHADKLVARIIRAYLSPVPGVNAIFEELEGHI 1012

Db 30 953 AVDALFVDSQYDRLQADTNIGMIAHADKLVARIIRAYLSPVPGVNAIFEELEGHI 1012

Query Match 82.1%; Score 5350.5; DB 1; Length 1227;
 Best Local Similarity 83.5%; Pred. No. 0;
 Matches 1031; Conservative 58; Mis matches 131; Index 15; Gaps 6;

Qy 1 LTSNRKNEEIN----AVSNISAMDLLPDARIEDSLCIACGNIDPFFVSASTVQGTI 55
 Db 1 LTSNRKNEEINALSIPAVNSNIAQMNLSTDARIEDSLCIACGNIDPFFVSASTVQGTI 60
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 Db 61 NIAGRILGYLVPPAGOLASFSYSPFLVGELEMPLRGRDPWEFLHEVQLRQVTENTRDTA 120
 Qy 116 LARLGLGLDSFRAYQOSLEDWLNRDDARTSVLHTQTAELDFLNAMPLFAIRNQEYP 175
 Db 121 LARLGLGLDSFRAYQOSLEDWLNRDDARTSVLHTQTAELDFLNAMPLFAIRNQEYP 180
 Qy 176 LLMYTAQANHLILLRDASLFGSEFGLTSQEIORYYERQVERTDSDYCVMWNTGLN 235
 Db 181 LLMYTAQANHLILLRDASLFGSEFGLTSQEIORYYERQVEKTRYSDCARYNTGLN 240
 Qy 236 SLRGTMNAASWVRYNQFRDLTGVLVALFPSTDRTPMNTSAQLETVYTAIGATG 295
 Db 241 NLRGTMNAESWLRYNQFRDITLGVLVALFPSTDRVPMNTSAQLETVYIDFIGRTN 300
 Qy 296 V-NWASHMWNNNAPSFSAIEAAIRSPHLLDEQOLTFSASSRWSNTRHMITYWRGHT 353
 Db 301 APSGFASSTWNNNAPSFSAIEAWTRPHLLDEPEQLTFSVSRWSNTOQMYWVGRH 360
 Qy 354 IQSRDIGGLNTSTIGATNTSINPVTLRFASRDVYRTSYAGVLLGIVYLEPIHGVPYR 413
 Db 361 LESRTRGSLSTSSTHGNTNTSINPVTLQFTSQRDVTESFAGNT--LTTTPVNCWPWAR 418
 Qy 414 FNFTNPQNTSDRGTMANYSQYESPQLQDSETBPPETERPNEYSHRLSHIGILQ 473
 Db 419 FWWRNPLN-SLRGSLLYTIGTYGVCTQFLDSETEPETTERPNYESHRLSNURLIG 477
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 Db 478 NTLRAPVSYWTHRSADRNTTSSDITQPLVKSNLNSTSIVSGPFGTGDILRTNVN 537
 Qy 534 GGFPIRVTNGPLTORYRIGFERYASTVDFEFFYSGGGTIVNNFFFLRTMNSGDELKGYN 593
 Db 538 GSVLJSMGLNNNTSISQYRVVRVRAQSQTMLVRVGGSTTEDQCPSTMISANEILTSQS 597
 Qy 594 FVRRATTPTFTQZQDIIRTSIQQLSGNGEVEYDKIEIIPVTAEEYDLERQEAVN 653
 Db 598 FREAEPVGISASGQQ-TAGISISNAGROTFFPKIEFFPITATAFEAEYDLERQEAVN 656
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 Db 657 ALFTTNPRRLKTDTDYHDEVSNLVACLSDEFCLDEKRELLEVKYAKRLSDERNLQ 716
 Qy 714 DPNFTNSINKOPDFISTNEQSNFTSTHEQSEHGWNGSENNTIQEGNDVFKENYVTLPGTFN 773
 Db 717 DPNFTNSINKOPDFISTNEQSNFTSTHEQSBHGWNGSENNTIQEGNDVFKENYVILEGTFN 776
 Qy 774 ECYPTRLYQKIGESELKAYTRYQOLGYIESQDLISIYLRYNAKETLDPGTBSIWPLS 833
 Db 777 ECYPTRLYQKIGESELKAYTRYQOLGYIESQDLISIYLRYNAKETLDPGTBSIWPLS 836
 Qy 834 VESPPIGRGCEPNRCAPHEFWNPDLDCSCRDGEKCAHHSHHSFLSDLVGCDLHENLGWV 893
 Db 837 VESPPIGRGCEPNRCAPHEFWNPDLDCSCRDGEKCAHHSHHSFLSDLVGCDLHENLGWV 896
 Qy 894 VFKIKTQEGRHGLNBFIEBKPLGEALSRSVKAEEKKWDRKREQLOLETKRVYTEAKEA 953
 Db 897 VFKIKTQEGRHGLNBFIEBKPLGEALSRSVKAEEKKWDRKREQLOLETKRVYTEAKEA 956
 Qy 954 VDALFVDSQDRLQADTNIGHADKLVHIREAYLSELSPVIPSYNAEIFFEIGHIT 1013
 Db 957 VDALFVDSQDRLQADTNIGHADKLVHIREAYLSELSPVIPSYNAEIFFEIGHIT 1016
 Qy 1014 AISLYDARNVYKNGIDFNGLTCWNNKGHDVQSSHRSRSLVPEAQSARVCPGCG 1073

RESULT 14
 Sequence 9, Application US/08448170
 Patent No. 5733758
 GENERAL INFORMATION:
 APPLICANT: Payne, Jewel
 ADDRESS: 2421 N.W. 41st Street, Suite A-1
 CITY: Gainesville
 STATE: Florida
 COUNTRY: USA
 ZIP: 32606
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC Compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: PatentIn Release #1.0, Version #1.25
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/448,170
 FILING DATE:
 CLASSIFICATION: 424
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/069,902
 FILING DATE: 01-JUNE-1993
 CLASSIFICATION: 424
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 07/759,247
 FILING DATE: 13-SEPT-1991
 CLASSIFICATION: 424
 ATTORNEY/AGENT INFORMATION:
 Name: Salwanchik, David R.
 REGISTRATION NUMBER: 31,794
 REFERENCE/DOCKET NUMBER: M/S 102D.C1
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (904) 375-8100
 TELEFAX: (904) 372-5800
 INFORMATION FOR SEQ ID NO: 8:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 1227 amino acids
 TYPE: amino acid
 STRANDEDNESS: single
 TOPOLOGY: linear
 MOLECULE TYPE: peptide
 US-08-448-170-8

RESULT 15

US-08-961-803-9
 ; Sequence 9, Application US/08961803
 ; Patent No. 6150589

GENERAL INFORMATION:

APPLICANT: Payne, Jewel
 Cummings, David A.
 Cannon, Raymond J.C.
 APPARENT: Narva, Kenneth E.
 APPLICANT: Steliman, Steve

TITLE OF INVENTION: No. 6150589el Bacillus thuringiensis Isolate Denoted
 TITLE OF INVENTION: Bt. Ps15C02, Active Against Lepidopteran Pest_s, and Genes
 NUMBER OF SEQUENCES: 10
 NUMBER OF SEQUENCES: Encoding Lepidopteran-Active Toxins

CORRESPONDENCE ADDRESS:
 ADDRESSEE: Jay M. Sanders
 STREET: 2421 N.W. 41st Street, Suite A-1
 CITY: Gainesville
 STATE: Florida
 COUNTRY: USA
 ZIP: 32606

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patent In Release #1.0, Version #1.25
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/961,803
 FILING DATE: 31-OCT-1997
 CLASSIFICATION: 800
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/069,902
 FILING DATE: 01-JUNE-1993
 CLASSIFICATION: 800
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 07/759,247
 FILING DATE: 13-SEPT-1991
 CLASSIFICATION: 800
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/448,170
 FILING DATE: 23-MAY-1995
 CLASSIFICATION: 800
 ATTORNEY/AGENT INFORMATION:
 NAME: Sanders, Jay M.
 REFERENCE/DOCKET NUMBER: M/S 102DCD1
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (352) 375-8100
 TELEFAX: (352) 372-5800
 INFORMATION FOR SEQ ID NO: 9:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 1227 amino acids
 TYPE: amino acid
 STRANDNESS: single
 TOPOLOGY: linear
 MOLECULE TYPE: peptide

Query Match 82.1%; Score 5350.5; DB 3; Length 1227;
 Best Local Similarity 83.5%; Pred. No. 0;
 Matches 1031; Conservative 58; Mismatches 131; Indels 15; Gaps 6;

Qy 1 LTSNRKNEENLIN----AVSNHSAQMNDLDPARLEDSLCLAEGNINIDPFVSASTVQTG1 55
 Db 1 LTSNRKNEENLINALSIPAVSNHSAQMNLSTDARLEDSLCLAEGNINIDPFVSASTVQTG1 60

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 Db 61 NIAGRILGVIGVPGFQIATSYSELVGLMPRGDWEITELHVQLRQVTEVTRDTA 120

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Qy 236 SLRGITNAASWVRYNQPRDRDTLGVDLVALPSYDRTYINTSQLTREVVYTDITGATG 295
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Qy 296 V-NWASMWVNNNAPSFSAATEAAIRSPHLDLFLBQLTIFSASSRSWNSNTRHMTYWRGHT 353
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Qy 474 SRVNVVYSMTHRSADRNTTGNRITQIPMVKASELPOGTTVYGPGBTGDIILRRNT 533
 Db 478 NTLRAPVSYTHRSADRNTTSSDITQIPLVKSFLNNSGTSVWGPGBTGDIIRTNVN 537

Qy 534 GGFPGPVRVTINGPLTQRYRIGFRYASTVDEDFFVSRGGTTVNFFLRTMNSGDELKYGN 593
 Db 538 GSVLSMGLNPNNTSSLQRYRVRVRAASQTMVLRVYVGGSTTFDQGPSTMSANBSLTSQS 597

Qy 594 FVRAATTPTPFTQODIIRTSICQLSGNBVYTKIEITPVTAFFEAETDLERQEAVN 653
 Db 598 FRFAFPVGISASGSG-Q-TAGISIISNAAGROTFFPKIEITPVTAFFEAETDLERQEAVN 656

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Qy 714 DPNFPSINKQPDF1STNEQSNFTSTHEQSEHGMGSENNTIOEGNDVFKENYVTLPGTFN 773
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Qy 774 ECYPITYQKIGESLKAATRYQIGYTEDSODIETYLRYNAKGETLDPGTBLWPLS 833
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Qy 834 VESPIGRCGPBNRCPAPHFWNPDLICSCRDGECKCAHHSHHFSLSDIDVGCTDHLHENLGIVN 893
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US-08-961-803-9

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Db 1017 AISLYDARRNYKNGDENGLACWNVKGHDVQSHRSVIPENEAESQAVERVCPCRG 1076

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Search completed: December 10, 2003, 18:16:30
Job time : 27 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: December 10, 2003, 18:15:14 ; Search time 43 Seconds

(without alignments)

5311.347 Million cell updates/sec

Title: US-09-661-016B-10

Perfect score: 6515

Sequence: 1 LTSNRKNEETINAVSNHSA.....IGETGKFIVDSEVLLMEE 1228

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 684280 seqs, 185983659 residues

Total number of hits satisfying chosen parameters:

684280

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published Applications AA:*

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18: /cgns_6/prodata/2/pubpaas/us60_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
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2	4549	69.8	1186	9 US-09-826-660-23	Sequence 23, Appli
3	3510.5	53.9	1189	11 US-09-972-175-59	Sequence 59, Appli
4	3510.5	53.9	1189	12 US-10-200-122-59	Sequence 59, Appli
5	3508.5	53.9	1189	11 US-09-972-175-2	Sequence 2, Appli
6	3508.5	53.9	1189	12 US-10-200-122-2	Sequence 2, Appli
7	3508	53.8	1177	9 US-09-873-873-10	Sequence 10, Appli
8	3508	53.8	1177	9 US-09-873-873-12	Sequence 12, Appli
9	3508	53.8	1177	9 US-09-873-873-14	Sequence 14, Appli
10	3508	53.8	1177	11 US-09-997-914-10	Sequence 10, Appli
11	3508	53.8	1177	11 US-09-997-914-12	Sequence 12, Appli
12	3508	53.8	1177	11 US-09-997-914-14	Sequence 14, Appli
13	3508	53.8	1177	12 US-10-365-645-10	Sequence 10, Appli
14	3508	53.8	1177	12 US-10-365-645-12	Sequence 12, Appli
15	3508	53.8	1177	12 US-10-365-645-14	Sequence 14, Appli

TITLE OF INVENTION: SYNTHETIC DNA SEQUENCE HAVING ENHANCED INSECTICIDAL ACTIVITY IN MAIZE

NUMBER OF SEQUENCES: 94

CORRESPONDENCE ADDRESS:

STREET: Syngenta Biotechnology, Inc.

CITY: Research Triangle Park

STATE: NC

COUNTRY: USA

ZIP: 27709

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

CURRENT APPLICATION DATA: Patent In Release #1.0, Version #1.3.0

APPLICATION NUMBER: US 09/988,462

FILING DATE: 20-No- US20030046726A1-2001

CLASSIFICATION: <Unknown>

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 09/547,422

FILING DATE: 11-APR-2000

APPLICATION NUMBER: US 08/459,504

ALIGNMENTS

RESULT 1
 US-09-988-462-7
 Sequence 7, Application US/09888462
 Publication No. US20030046726A1
 GENERAL INFORMATION:
 APPLICANT: Koziel, Michael G.
 Desai, Nalini M.
 Lewis, Kelly S.
 Kramer, Vance C.
 Warren, Gregory W.
 Evola, Stephen V.
 Crossland, Lytle D.
 Wright, Martha S.
 Merlin, Ellis J.
 Laurin, Karen L.

FILING DATE: 02-JUN-1995
 APPLICATION NUMBER: US 07/951,715
 FILING DATE: 25-SEP-1992
 APPLICATION NUMBER: US 07/772,027
 ATTORNEY/AGENT INFORMATION:
 NAME: Meigs, J. Timothy
 REGISTRATION NUMBER: 38,241
 REFERENCE/DOCKET NUMBER: S-188051
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (919)541-8689
 TELEFAX: (919)541-8587
 INFORMATION FOR SEQ ID NO: 7:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 1207 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 SEQUENCE DESCRIPTION: SEQ ID NO: 7:
 us-09-988-462-7

Query Match Score 98.3%; Best Local Similarity 99.9%; Matches 1206; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

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 Db 1 MDLPLDRIESLCIAGNNIDPFVSASTVTQGINTAGRLVGVPAFAGOLASFVSLV 60
 Qy 82 GELWPRGRDQEWTFLHEBOLINQQTENARNNTALARQLGDSFRAYQOSLEDWLNRD 141
 Db 61 GELWPRGRDQEWTFLHEBOLINQQTENARNNTALARQLGDSFRAYQOSLEDWLNRD 120
 Qy 142 DARTRSVLHTQIALEDFLAMPLPAIRNQEVLMLVYQAQNHLILLARDASFGSF 201
 Db 121 DARTRSVLHTQIALEDFLAMPLPAIRNQEVLMLVYQAQNHLILLARDASFGSF 180
 Qy 202 GLTSQETRYERQVETRDSDYCWEWYNTGLNSLRGTMASWRYNQFRDLTLLGVL 261
 Db 181 GLTSQEICRYERQVETRDSDYCWEWYNTGLNSLRGTMASWRYNQFRDLTLLGVL 240
 Qy 262 LVALFPSYDTRTPINTSAOLTREVYTDAGATGVNNMAMWNYNNAPSAIEAAIRS 321
 Db 241 LVALFPSYDTRTPINTSAOLTREVYTDAGATGVNNMAMWNYNNAPSAIEAAIRS 300
 Qy 322 PHILDEFLQLTIFSASSRWSNTRHMTWGRHTIQSPIGGGUITSPIHGATNTSINPVTLR 381
 Db 301 PHILDEFLQLTIFSASSRWSNTRHMTWGRHTIQSPIGGGUITSPIHGATNTSINPVTLR 360
 Qy 382 PASRDVYRTESAGVLLGIVLEPIHGPTVRNFNPNQNSDRGTANYSOPYESPGQL 441
 Db 361 PASRDVYRTESAGVLLGIVLEPIHGPTVRNFNPNQNSDRGTANYSPYESPGQL 420
 Qy 442 KDSSETELPETERPNYESYSHRLSHITGIIQSRSRVNPVYSWTHRSADRNTTIGPNRITQ 501
 Db 421 KDSSETELPETERPNYESYSHRLSHITGIIQSRSRVNPVYSWTHRSADRNTTIGPNRITQ 480
 Qy 502 1PMVKASLPLQSTTVRGPGFTGGDIIIRRTNGGFPIRTRVYIGFYASTV 561
 Db 481 1PMVKASLPLQGTTVRGPGFTGGDIIIRRTNGGFPIRTRVYIGFYASTV 540
 Qy 562 DDFEFFVSRGGTTNNFRRLRTMNSGDBLKYGFMVRAFFTPTFTQDQDIRTSOGLSG 621
 Db 541 DDFEFFVSRGGTTNNFRRLRTMNSGDBLKYGFMVRAFFTPTFTQDQDIRTSQGLSG 600
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 Db 601 NGEVYIDKIEIPVTAPEYDLEAQNALFTNPRRLKTDTYHIDQVSNLVA 660
 Qy 682 CLSDEFCLDEKRELLKEVKAQLSDRNLQDPNFTSINKQPDF1STNEOSNFTSIHEQ 741
 Db 661 CLSDEFCLDEKRELLKEVKAQLSDRNLQDPNFTSINKQPDF1STNEOSNFTSIHEQ 720

Qy 742 SEHGWGSENITIQGNDVFKENVTLPGTNFNCYPTLYQKIGESELKAYTRYQRLGYI 801
 Db 721 SEHGWGSENITIQGNDVFKENVTLPGTNFNCYPTLYQKIGESELKAYTRYQRLGYI 780
 Qy 802 EDSQOLEIYLIRYNAKHETLDVGTEISLMPLESVSPIGCEPNRCAPHEFNWPIDCSC 861
 Db 781 EDSQOLEIYLIRYNAKHETLDVGTEISLMPLESVSPIGCEPNRCAPHEFNWPIDCSC 840
 Qy 862 RDGECAHHSHFSLSDIDVGCTDHLHENLGWVVFKITQEGHARLGNLFEEKPLGEA 921
 Db 841 RDGECAHHSHFSLSDIDVGCTDHLHENLGWVVFKITQEGHARLGNLFEEKPLGEA 900
 Qy 922 LSRVRAEKWKRDKBKLQLETKRVYUTEAKEADVLFDVSDQYDRLQADNMIGMHAADKL 981
 Db 901 LSRVRAEKWKRDKBKLQLETKRVYUTEAKEADVLFDVSDQYDRLQADNMIGMHAADKL 960
 Qy 982 VHRIREAYLSELVPVPGVNAEIPEPLEGHITAISLYDARNVVNGDFUNGLTCMVKGH 1041
 Db 961 VHRIREAYLSELVPVPGVNAEIPEPLEGHITAISLYDARNVVNGDFUNGLTCMVKGH 1020
 Qy 1042 VDVOQSHRSVLVPEWEAEVSOAVRVCPCGYIIRVTAKEYGEGCYTHEIENNTDE 1101
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 Db 1081 LKFQKREEEVYPTDGTGNDYTAHQTAGCADANSRNQAYEDYEVDTTASYNKPYT 1140
 Qy 1162 BEETYTDVRRDNHCYDRGVNVNYPVPAVGTVTKELEYFPETDTWIEIGSTEGRIVDSV 1221
 Db 1141 BEETYTDVRRDNHCYDRGVNVNYPVPAVGTVTKELEYFPETDTWIEIGSTEGRIVDSV 1200
 Qy 1222 ELLAMEE 1228
 Db 1201 ELLAMEE 1207

RESULT 2
 US-09-826-660-23
 ; Sequence 23, Application US/09826660
 ; Patent No. US20010026401
 ; GENERAL INFORMATION:
 ; APPLICANT: Cardineau, Guy A.
 ; STELMAN, Steven J.
 ; APPLICANT: Narva, Kenneth E.
 ; TITLE OF INVENTION: Plant-Optimized Genes Encoding Pesticidal Toxins
 ; FILE REFERENCE: MA-714XC2D1
 ; CURRENT APPLICATION NUMBER: US/09-826,660
 ; CURRENT FILING DATE: 2000-04-05
 ; PRIOR APPLICATION NUMBER: 09/178,252
 ; PRIOR FILING DATE: 1998-10-23
 ; PRIOR APPLICATION NUMBER: 60/065,215
 ; PRIOR FILING DATE: 1997-11-12
 ; PRIOR APPLICATION NUMBER: 60/076,445
 ; PRIOR FILING DATE: 1998-03-02
 ; NUMBER OF SEQ ID NOS: 27
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO: 23
 ; LENGTH: 1186
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; OTHER INFORMATION: Toxin encoded by synthetic B.t. gene
 ; US-09-826-660-23

Query Match Score 69.8%; Best Local Similarity 72.5%; Pred. No. 0; Mismatches 96; Conservative 96; Indels 179; Gaps 66; Gaps 10;
 Qy 1 LTSNRKRNENEIIN-----AVSNHSQMDLUDPAREBDSLCTAEGNNIDPPEVSASTVQRTGI 55
 Db 1 LTSNRKRNENEIIN-----AVSNHSQMDLUDPAREBDSLCTAEGNNIDPPEVSASTVQRTGI 60

Qy 56 NTAGRLIGVGVPPAGQALASFSPVPLGELWPRGDWEIFLHEQLINQQTENARNTA 115
 Db 61 NTAGRLIGVGVPPAGQALASFSPVPLGELWPRGDWEIFLHEQLINQQTENARNTA 120

Qy 116 LARLOGIDSFRAQQSLEDWLNRDARTSVLHTOIALELDFINAMPLFAIRNQEVP 175
 Db 121 LARLOGIDSFRAQQSLEDWLNRDARTSVLHTOIALELDFINAMPLFAIRNQEVP 180

Qy 176 LIMVYAOANHILLRDASLFGSEFCITSQIORYEROVERTDSYDCYEWVNGLN 235
 Db 181 LIMVYAOANHILLRDASLFGSEFCITSQIORYEROVERTDSYDCYEWVNGLN 240

Qy 236 SLRGTNAAAMYRWNOPRDLTGVLQDVALPSYDRTYPINTSAOLTREVYTDAIGTG 295
 Db 241 NURGTNAESWLRYNOFRDLTGVLQDVALPSYDRTYPINTSAOLTREVYTDPGRNT 300

Qy 296 V -NMASNNWNNNAPSAESEAATRSPHLDLFQLTIFSASSRWSNTRHMITYWRGHT 353
 Db 301 APSGFASSTNWNNNAPSAESEAATRSPHLDLFQLTIFSASSRWSNTRHMITYWRGHT 360

Qy 354 IOSRPICGGLNATSTHGATNTSINPVTLRFASRDVYTESVAVGILWGIYLEPIHGSPVTR 413
 Db 361 LBSRTIRGSLSTSTHGNTNTSINPVTLQFTSRDVYTESVAGINI -LTLTPVNGPWAR 418

Qy 414 ENFTNPONISDRGTANYSQYSPESPGQLKQDSETELPPETTERPNTYESYSHRLSHGILQ 473
 Db 419 FNWRNPNU-SLRGSLLYTTGTVGTOFLFDSETELPPETTERPNTYESYSHRLSHGILSG 477

Qy 474 SRVNPVPSWTHRSADNTTGNPRTQPMVKASELPQGTPTVVRGPFTGQDILRRNT 533
 Db 478 NTLRAPYPSWTHRSADNTTSSSDTQIPLKTSFNLNSGTTSVSPGPFTGQDILRTNVN 537

Qy 534 GGFGPPIRVTVNGPLTORIGFRYASTDFFFVSRGGTTNNFRFLRTMNGDELKYGN 593
 Db 538 GSVLMSGDNINFNTSLQRVTRYAAQSQTMLRVTGGSTTFDOGFPSTMSANESLTQS 597

Qy 594 FVRRATFTPFITQDIIIRTSIQGUSGNGEVYIKKEIIPVTTATEAIDLERAQEAVN 653
 Db 598 FRFAEEFPVGISASGSQ-TAGISISNNAGRCFHDKIEFIPITATLAEASLERAQAVN 656

Qy 654 ALFTNTNPRLKTDVDYHIDOVSNLVCLSDEFCLDEKRELLEYKVKYAKRLSDERNLQ 713
 Db 657 ALFTSSNQIGLKTDVDYHIDEVSNLVCLSDEFCLDEKRELLEYKVKYAKRLSDERNLQ 716

Qy 714 DPNFTSINKOPDFISTNEQSNTSITHEQSEGWWGSENITILOQNDVFKENYVTPGTEN 773
 Db 717 DPNFRGIRNQIOLD-----RGWRSSTDITIQQGDDVFKENYVTPGTEN 758

Qy 774 ECPYTYLQKIGESELKAYTRQYLRGYIEDSODLEYLIRYNAKETLDPGTBSLWPLS 833
 Db 759 ECPYTYLQKIDESKLKAYTRQYLRGYIEDSODLEYLIRYNAKETVNPGBTSLWPLS 818

Qy 834 VESPIGRGEPNRCAPHEFWNPDLGSCRDGEKCAFHSHHFSLDDIVGCTDLHENIGVWV 893
 Db 819 APSPIG -----KCAFHSHHFSLDDIVGCTDLHENIGVWV 852

Qy 894 VFKIKTOEGHARLGNLIEEEKPLPLGEASVKAEEKKWDKREKLQLETKRVTBKEA 953
 Db 853 IFKIKTOGHRGLNLIEEKPLPLGEASVKAEEKKWDKREKLQLETKRVTBKEA 912

Qy 954 VDALFVDSQYDRLQADNTIGMTHAADKLVHIREAYLSELPVPGVNAIFEELGHIT 1013
 Db 913 VDALFVDSQYDRLQADNTIGMTHAADKLVHIREAYLSELPVPGVNAIFEELGHIT 972

Qy 1014 AFSLYDARVNYKQDFNGLTCWNVKGHDY-QQSHHRSDSLIVPEMEAESQAVRCPGC 1072
 Db 973 AFSLYDARVNYKQDFNGLTCWNVKGHDY-BEQNNHRSLSVLPVPEMEAESQAVRCPGC 1032

Qy 1073 GYLRVTAKEYGECCVTHEIENNTDELKFKORREEEVYPTDGTCDNYTA ---HQG 1128
 Db 1033 GYLRVTAKEYGECCVTHEIENNTDELKFKNSNCVEEYVPPNTVTCNDYTAQEEYEG 1092
 Qy 1129 TAGCADACNSNAGYEDAYEVTDTASVNYKPTYEESTYDVRDNHCEYDRGYNNPPV 1188

Db 1093 T-----YTSRNRRGTDGAYESNSSSYPADYASAYESEKAYTDRDNPCESNRGYGYTPLP 1146
 Qy 1189 AGYTMKELYTYPEPDTWIEGETSKFIYDVSVELLMEE 1228
 Db 1147 AGYTMKELYTYPEPDTWIEGETSKFIYDVSVELLMEE 1186

RESULT 3
 US-09-972-175-59
 Sequence 59, Application US/09972175
 Publication No. US2003010182A1
 GENERAL INFORMATION:
 APPLICANT: Baum, James A.
 Gilmer, Amy Jelen
 METUS, Anne-Marie Light
 TITLE OF INVENTION: TRANSGENIC PLANTS EXPRESSING
 LEPIDOPTERAN-ACTIVE-DELTA-ENDOTOXINS
 NUMBER OF SEQUENCES: 76
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: Arnold, White & Durkee
 STREET: P.O. Box 4433
 CITY: Houston
 STATE: Texas
 ZIP: 77210
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patentin Release #1.0, Version #1.1.30
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/09/972,175
 FILING DATE: 05-Oct-2001
 CLASSIFICATION: <Unknown>
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 09/337,635
 FILING DATE: <Unknown>
 ATTORNEY/AGENT INFORMATION:
 NAME: Kitchell, Barbara S.
 REGISTRATION NUMBER: 33,928
 REFERENCE/DOCKET NUMBER: MECO: 206
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 512/418-3000
 TELEX: 512/414-7577
 INFORMATION FOR SEQ ID NO: 59:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 1189 amino acids
 TYPE: amino acid
 MOLECULE TYPE: protein
 SEQUENCE DESCRIPTION: SEQ ID NO: 59:
 US-09-972-175-59

Query Match Score 351.0%; DB 11; Length 1189.
 Best Local Similarity 58.1%; Pred. No. 5..le-301;
 Matches 729; Conservative 128; Missmatches 296; Indels 101; Gaps 21;

Qy 7 NENETI - - NAVSNHSQAQMDDILPDARIEDSLSIAREN-NIDPFVSASTVQTGNIAGRLG 63
 Db 5 NQNQCIPYCNLSN-----PEEVLDGERISTNSSID--ISLVLQ-----FLV 46

Qy 64 VLGVFPAGQLASFSPVPLGELWPRGDQWEIFLVEQVOLINQQTENANTALARQGCG 123
 Db 47 SNFVFGGFLVGLDIFWVGVGP -- -SQMDAFLVQIBOLINERAEFARNAAIANLEGUG 103

Qy 124 DSFRYQQSLEDVWLNDDARTSRLHTOYTAELDFNAMPFLAIRNOEVPLMVYQA 183
 Db 104 NNFNHYEARKEWEDDPANPATRIVDRFLDGLLDRIPSAPASGFPVPLSVYQA 163

Qy 184 ANLHLLRDLASLFGSEFCGLTSQEIQRYERQVERTRDSYDCVWYNTGNSLRGTNAA 243
 Db 164 ANLHLLRDLASLFGSEFCGLTSQEIQRYERQVERTRDSYDCVWYNTGNSLRGTNAA 223

Publication No. US20030195336A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Baum, James A.
 ; GILMER, Amy Jelen
 ; METTUS, Anne Marie Light
 ; TITLE OF INVENTION: NUCLEIC ACID AND POLYPEPTIDE COMPOSITIONS ENCODING LEPIOPTERAN-TYPE POLYPEPTIDES
 ; CURRENT APPLICATION NUMBER: US10/200,522
 ; CURRENT FILING DATE: 2002-07-22
 ; PRIOR APPLICATION NUMBER: 09/337,280
 ; PRIOR FILING DATE: 1999-06-22
 ; PRIOR APPLICATION NUMBER: 08/980,071
 ; PRIOR FILING DATE: 1997-11-26
 ; PRIOR APPLICATION NUMBER: 08/757,536
 ; PRIOR FILING DATE: 1996-11-27
 ; NUMBER OF SEQ ID NOS: 76
 ; SOFTWARE: Patentin version 3.1
 ; SEQ ID NO: 59
 ; LENGTH: 11.89
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; OTHER INFORMATION: Recombinant Delta Endotoxin
 US-10-200-522-59

Query 244 SWVRYNQFRRDLTGLVLDLVALFPSYDRTYPINTSAQLPREVYDAIGATGVNMASNNW 303
 Database 224 DWITYNLRDILTLVLDIAFPNTYDNRRIPIQPGQLRREVYDPL---INFNPOQLQ 279

Query 304 YNNNAPSFAIBAAIRSPLLDFEQLTIFSSASSRWSNTRHMTYWRGHTIQSPRGCGI 363
 Database 280 SVAQLPNTVMESSAIRNPFLDILNLTF---TDWFSGRNFYWGHRVSSLJGGGN 336

Query 364 NTIS-THGATNSINPVLREASRDYRTESAGVLL--WGYLEPLHGYPTVRNF-T 417
 Database 337 ITSPYGRNEAQPEPRTFNGPVTPLSNPTLRLQOPMAPPENLGVEGEVFSTPI 395

Query 418 NPQNISDGTANYSPYESPGLQKDFSETLPETTERPNYESSHRLSHIGIIQSRYN 477
 Database 395 NSFTYGRGTV-----DSLTELPEDNSVPREGTSYHRLCHATFV-QRG 439

Query 478 VP-----VSYWTHESADRTNTIGNRITQIPMKASELPQGTIVRGPROFTGGDLRRT 531
 Database 500 TPFLLTGVVPSWTHSATLTNTIDPERINQIPLVGRFRWGGTSITGPFTGGDLRRT 499

Query 532 NTGGFGTIRVNTGPIUTQYIGERTASTVDFDFFYRGCTVYRGPFHTGGDILRLRN 531
 Database 560 TFGDFSVLQVNINSPITQYRLRFSRDRVYLGAStGTCGQSVNMPHQKME 559

Query 585 SGDELKYNQFVRRAFTPTFTQIDLRTSQGLG-----NGEVYIDKEIIPVTAFF 639
 Database 601 IGENLRTTRTFRYDTSNPFSPRNPDTGISEQPLFGAGSISSEGYIDKEIILADATP 619

Query 640 EAEDYLERQAQAVNALFTNTNPRRLKTDVTDYHIDQVSNLVACLSDEFCLDEKRELKV 699
 Database 620 EAESDLERAQKAVNALFTSSNOIGLKTVDYHIDQVSNLVDCLSDEFCLDEKRELERV 679

Query 700 KYAKRSLDERNLQDPNTSINKQDFISTNEQSNTSITHQESEGWMSSENITIQGND 759
 Database 680 KHAKRSLDERNLQDPNFRGQNRPD-----RCWRSGSDITIQGDD 721

Query 760 VPKENYTLPLGFNECPTYLQKIGSESELKAYTRYQLYIEDSDOLEYLIRYNAKE 819
 Database 722 VPKENYTLPLGTYDECPTYLQKIDESKLKAYTRYQLYIEDSDOLEYLIRYNAKE 781

Query 820 TUDVPGTESLWLPSVEPIRGCEPNRCAPHEWNFDLDCSCRDGECAHHSHHFSLDID 879
 Database 782 IVNVPGTCSLWLPSAQSPIGCGEPNRCAPHEWNFDLDCSCRDGECAHHSHHFTLDID 841

Query 880 VGCSTDHBNLGYWVFKIKTQGCHARLGNLETEKPLGLALSRYKRAEKWKREKL 939
 Database 842 VGCSTDHBNLGYWVFKIKTQGCHARLGNLETEKPLGLALSRYKRAEKWKREKL 901

Query 940 QLETKRVYTEAKAEDALFVDSQYDRLQADNIGMTHADKLVHRTREAYLSELPVIGV 999
 Database 902 QLETNITYKEAKESVDAFLFVNSQYDRLQADNIGMTHADKRVHRTREAVLPESVIGV 961

Query 1000 NAIEFEELGHITAISLYDARNVNGDFENGTLCWVKCHHDV-QSSHRSIDLVTPW 1058
 Database 962 NAIAFEELGRIFTASLYDARNVNGDFENGTLCWVKCHHDVQEQQNHRSLVTPW 1021

Query 1059 EAEVSQAVRCPCGYLRLTAYKEGYEGCYTIELENNTDELKEKNRREEEYPTDTG 1118
 Database 1022 EAEVSQEVRCPCGYLRLTAYKEGYEGCYTIELENNTDELKEKNRREEEYPTDTG 1081

Query 1119 TCNDYTA---HQTAGQADACNSRNAGGEDAYEVDTTASNYKPTYEETYTDRVNDH 1174
 Database 1032 TCNNYTGQEEYEGT----YTSRNGGGDEAYGNNFSVPADYASYEKSYDGRREN 1135

Query 1175 CEYDRGYVNPYPPAGTYKTELEYFPPDTWIEGETGKFIVOSVELLIME 1228
 Database 1136 CESNRGTCGYDTPPLPAGTYKTDLEYFPPDTWIEGETGKFIVOSVELLIME 1189

NAME: Kitchell, Barbara S.
 REGISTRATION NUMBER: 33, 928
 REFERENCE/DOCKET NUMBER: MECO-206
 TELECOMMUNICATION INFORMATION
 TELEPHONE: 512/418-1000
 TELEFAX: 512/414-7577
 INFORMATION FOR SEQ ID NO: 2:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 1189 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 SEQUENCE DESCRIPTION: SEQ ID NO: 2:
 US-09-972-175-2

Query Match 53.9%; Score 3508.5%; DB 11; Length 1189;
 Best Local Similarity 58.1%; Pred. No. 7.7e-301;
 Matches 723; Conservative 128; Mismatches 296; Indels 101; Gaps 21;

Qy 7 NENELI-NAVSNMSAQMDLPLDARIEDSUSCIACSGN-NIDPFVSASTYQGGINIAGRILG 63
 Db 5 NQNQCIPYNCISN-----PEVYLGERISTNSNSSID--ISL-SLVQ-----FLV 46
 Qy 64 VLGVPPAGOLASPSFLVGLWPRQDQWEIPLEHQEQLINQQTENANTALALQGLG 123
 Db 47 SNFVGGFLVGLLIFWVGIVGVGP---SONDAFLVQEQLINERIAEFARNAAIANLEGLG 103
 Qy 124 DSFRAYQQSDDWLNRDDARTSLTHQTYAILEDFLNAMPMLPFAIRNQEVPLINHYQA 183
 Db 104 NNFNYYVEAKWEDDPNNPATRVIDPRFLDOLLERDIPSFSISGFVPVLSSVYQA 163
 Qy 184 ANLHLLLRDASLFGSEFGLTSQETORYERQVERTRSDYCVBHWYNTGLNSLRGTNA 243
 Db 164 ANLHAIRLRSVIFERWGTTINNNENNLRLHIDEBADHCANTYNGLNNLFKSTYQ 223
 Qy 244 SWVRYNQFRDLTLCGLDVALPFSSYDPTTPINTSAQLTREVYTDAGATGVNMASHN 303
 Db 224 DWITRNLRDLTUVLDIAAFFPNDRYPIQPGQLTREVYDPL---INFPNQLQ 279
 Qy 304 YNNNAPSFSAIEAAMIRSPLLDFEQLTFSASRSWSNTRHMYWRGHITIOSPIGGGL 363
 Db 280 SVAQLPFTNMESSAIRNPHLFIDLNNLTF---TDWFSVGRNFYWGHRVISSILGGN 336
 Qy 3.64 NTS-THGATNTSINPVTLRFASRDVYRTESYAGYL---WGIYLEPIHGVPVTYRFNF-T 417
 Db 337 ITSPYGRNEAQNEPERSFT-NGPVFRTLSNPTRLQQWPAPFPNLRGVEGFSTPT 395
 Qy 418 NPQNISDRGTANYSOPYESPGLQKUDSETLPETTERPNYESYSHRLSHIGITIQLSRVN 477
 Db 396 NSFTYTRGRGTV----DSLTLPEDNSVPREGYSHRLCHATFV-QRSG 439
 Qy 478 VP----YSSWTHRSADRNTICSPNRTQIPMVKASELPQGTTVVRGGFTGIDLRLT 531
 Db 440 TPFLLTGVFWSWHSATLTNTIDERINQIPLYKGFRVWGGTSVITGPFGTGIDLRRN 499
 Qy 532 NTGGFPPIRVYNGELPTORYRIGPRAYASTVDFPVSRGTTVN----NFRFLRTMN 584
 Db 500 TFGDVSLOVNINSFTORYRLLRPFYASSRDTAVLTGAASTGQVSVNMPQKTM 559
 Qy 585 SGDELKYGKGNVRRAFTTPPTPFTQICDIIRTSIQGSG---NGEVYIDKIEIIPVTAE 639
 Db 560 IGENUTSFRPYTDNSPFSFRANDPDIIGSEQPFGASSISSGELYIDKIEIILADATP 619
 Qy 640 EAELYDLERAEAVNALLFTNPRKLTQDFTDQHIDQVSNUVACLSDEFCLDEKRELLKV 699
 Db 620 EAESSLERLAOKAVNALLFTNSQIGKTDVYHIDQVSNUVDCUSDEFCLDERLSEKV 679
 Qy 700 KYAKPLSDEFLNLDQPNFTSINKOPDFISTNEQSNTS1HEQSEHGMWSNTIQLQND 759
 Db 680 KHAQLSDERNLNLLQPNFNGINRQD----RGWRSSTDITIQQGD 721
 Qy 760 VPKENNYVTLPGTFCNECYPTLYQXGESELKAYTRYQLRGYIESTQDSEBLIRYNAKE 819

RESULT 5
 US-09-972-175-2
 Sequence 2, Application US/09972175
 Publication No. US-03010148Z/A1
 GENERAL INFORMATION:
 APPLICANT: Baum, James A.
 Gilmer, Amy
 Mettus, Anne-Marie Light
 TITLE OF INVENTION: TRANSGENIC PLANTS EXPRESSING
 NUMBER OF SEQUENCES: 76
 LEPIDOPTERAN-ACTIVE-DELTA-ENDOTOXINS
 CORRESPONDENCE ADDRESS:
 ADDRESS: Arnold, White & Durkee
 STREET: P.O. Box 4433
 CITY: Houston
 STATE: Texas
 COUNTRY: USA
 ZIP: 77210
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC Compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/09/972,175
 FILING DATE: 05-Oct-2001
 CLASSIFICATION: <unknown>
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 09/337,635
 FILING DATE: <Unknown>
 ATTORNEY/AGENT INFORMATION:

Db	722	VFKENYVTLPLGTVDECYPTIYQKIDESKLKAYTRVLEGRGYIEDSDOLEYLIRYNAKHE	781
Qy	820	TLDVPGTGESLNLPSVSPIGCGEPNRCAPHEFWNDLDCSQRDGEKAHSHHFSLDID	879
Db	782	IvnPGTGSNLPSAQSPIGCGEPNRCAPHEFWNDLDCSQRDGEKAHSHHFTLDID	841
Qy	880	VGCTDLRHNGLWVVFCKITQEGHARLGNLESTEKPLGAEALSRTYRAEKKWRDREKL	939
Db	842	VGCTDLNEGLGWVIFKITQDGHARLGNLESTEKPLGAEALSRTYRAEKKWRDREKL	901
Qy	940	QLETKRKYTEAKEAVDALFYDSDQYDRLOADTNTIGMTHAADKLVHTRTEAVALSELPPVIGV	999
Db	902	QLETNIVTYKEAKESVDALFNSQYDRLOQDVTNIAAMTHADEVHRHTREALYPELSVIGV	961
Qy	1000	NAAIFPEPLEGHHTATSLYDARNVNGKDFNGLTCWNVKHHDV-QOSHRSVLVIPW	1058
Db	962	NAAIFPELEGRFTAISLYDARNVNGKDFNGLCWNVKHHDVQEONNERSVLVIPW	1021
Qy	1059	EAEVSOAVRCFGCGYTLRRTAYKEGYEGCVTIHEINTDELKFKNRBREREVVYPTDTG	1118
Db	1022	EAEVSOEVRVCFGGTTLRRTAYKEGYEGCVTIHEINTDELKFKNRBREREVVYPTDTG	1081
Qy	1119	TCDNYTA--HGOTAGCADACNSRNQAYEDAYEVDTTASVNYKPTYEETDVRDNH	1174
Db	1082	TNNNTCTQQEEYEGT----YTSRNGQYDEAGYNNPSVADAYSYEEKSYTDGRREN	1135
Qy	1175	CBYDRGVNVNPPVAGTVKELYFPPTDTWIEGETEGKFIIVDSVELLMEE	1228
Db	1136	CESNRGVDYDTPLPAGTVTKDLEYFPETDKWIEGETEGKFIIVDSVELLMEE	1189
RESULT 6			
US-10-200-522-2			
Sequence 2, Application US/10200522			
Publication No. US20030195333A1			
GENERAL INFORMATION:			
APPLICANT: Baum, James A.			
APPLICANT: Gilmer, Amy Jelen			
APPLICANT: Mettus, Anne Marie Light			
TITLE OF INVENTION: NUCLEIC ACID AND POLYPEPTIDE COMPOSITIONS ENCODING LEPIDOPTERAN-TITLE OF INVENTION: POLYPEPTIDES			
FILE REFERENCE: MECO:213 (11792-0213 DVUS01)			
CURRENT APPLICATION NUMBER: US/10/200,522			
CURRENT FILING DATE: 2002-07-22			
PRIOR APPLICATION NUMBER: 09/337,280			
PRIOR FILING DATE: 1999-06-22			
PRIOR APPLICATION NUMBER: 08/980,071			
PRIOR FILING DATE: 1997-11-26			
PRIOR APPLICATION NUMBER: 08/757,536			
PRIOR FILING DATE: 1996-11-27			
NUMBER OF SEQ ID Nos: 76			
SOFTWARE: PatentIn version 3.1			
SEQ ID NO 2			
TYPE: PRT			
ORGANISM: Artificial Sequence			
FEATURE: OTHER INFORMATION: Recombinant Delta Endotoxin			
US-10-200-522-2			
Query Match Score: 3508.5; Length: 1189;			
Best Local Similarity: 58.1%; Pred. No. 7.e-301;			
Matches: 729; Conservative: 128; Mismatches: 296; Indels: 101; Gaps: 21;			
NENEII--NAVSNSHAQMNDLLPARDISLCLIAEGN-NIDPPFVSASTVQGTGINIAGRLG 63			
NQNQCIPNCLSN-----PVEVLDDGERISTGNSSID- ISLSLVQ-----FLV 46			
VLGVPPAGLASFYSFLVGLWPRGRDOWEILEHVEOLINQQTENANTALARLOGLG 123			
SNPVGGFLVGLDIFWVIGVGP---SWDAFLVQIBELINEIAEFARNAIANLEGLG 103			
DSEFRAYOOSLEDWLNPDAPBPSVSHTOYIALEDPNAMPJFATPNCEVBLIMYAC 183			
Db	104	NNENLYVEAFKEWEEDPNNPATRTRVTDRLFRILDGLLERDIPSPFASLGFEVPLLSYQA	163
Qy	184	ANHLIJLRLDASLFLGFBGLTSQEIQRYERQVERTRDSDYCWEVNTGUNSLRGITNAA	243
Db	164	ANHLILRLRSVIFGRWGLTTINVENNYNLRHDEADHCANTYNRGNNLPLSTYQ	223
Qy	244	SWVRYNQFRRDRLTGFLDLYALFPPSYDTRTPINTSAQLTREVYTAIGATGVNMAMNW	303
Db	224	DWITNRLRDLTTLTDIAEFFNDNRRPQIOPQGQLTREVYPL---INFNPQLQ	279
Qy	304	YNNNADSFAEAARSPHILDELOLITFSASSWSNTRHMTWIRGHTIOSRPPLOGGL	363
Db	280	SVAQLTENMESSAARNPHFLDILNLNTIF--PWFSVGRNFYWGHRVSSLGGGN	336
Qy	364	NTS-TIGATNTSINPPTLRFASRDYRTESYAGVLL---WGIYLPPIHGVPTRVNFT-417	
Db	337	ITSPPIGREANOEPPSFTE NGQVPTTISNPTLRLQQWPAPPNLRGVEGSTPPT	395
Qy	418	NPQNISDRGTANYSQYESPGLQLKQSETELPPETTERNPYESYSHRLSHIGLILQSRVN	477
Db	396	NSFTYRGRTV-----BSLTFPDPNSVPBPREGYSSRHLCHATFV- -QRSG	439
Qy	478	VP-----VTSWTHRADRINTIGPRITQPMUKASELPLQGTTVTRGPGFTGCDLIRRT	531
Db	440	TPFLTGUVFWSWTHRSATLNTIDPBRINQ1PLVKGFRVNMGCTSVLTGPGFYGGDILRRN	499
Qy	532	NTGGFSPIRTVNGPQTRQTRIGFRAYSTVDFFPSRGTTVNV-----NFRFRTMN	584
Db	500	TFGDPFLSQLQVINNSPATORFLRFPASSDARVLTGAATSTGVCQSVNMPLOQTME	559
Qy	585	SGDELYKGNFVRRAFTTPFTFOIQDIIIRTSTQGLS-----NGEVYIDKIBIPTATF	639
Db	560	IGENLTSRTFRTYDNPNSPFRANPDIIGEQPLGAGSISQIGMTEYDQGIVSBE	619
Qy	640	BABYDERAQAVNAFLTNTNPRRLTDYHIDQVSNLNACLSDEFCLDKRELLERV	699
Db	620	EAESDLERAQAVNAFLTSSQIQLMTDVTYHIDQVSNLVDCLSDEFCLDKRELSKEV	679
Qy	700	KYAKRLSDERNILQDPNFTSINKOPDFTISTNEQSNFTSIHETOEHGMSENITIQEGND	759
Db	680	RHAKRISDERNILQDPNFTSINKOPDFTISTNEQSNFTSIHETOEHGMSENITIQEGND	721
Qy	760	VPKENYVTLPGTNPNCPTYQKIGSESELKAYTRYQKGYLEDQSODLEIYLRINYAKHE	819
Db	722	VPKENYVTLPGTVDECPTYQKIDESLKUAKTRYELRGYTEDQSODLEIYLRINYAKHE	781
Qy	820	TLDVPGTESLPLSVSPIGIGEPRCAPHEFWNDLDCSERDGECAHSHHFSLDID	879
Db	782	IVNVPGTGSNLNPLSAQSPIGKCPEPRCAPHEFWNDLDCSERDGECAHSHHFSLDID	841
Qy	880	VGCTDHLHENLGWVPPKIKTOEGHARLGNLETFEEKPLLGAEALSRYKRAEKKWRDREKL	939
Db	842	VGCTDNLNEDLGWVIFKIKTOGHALGNLETFEEKPLLGAEALSRYKRAEKKWRDREKL	901
Qy	940	QLETKRKYTEAKAVDALFYDSDQYDLOADNIGMHAADKLVHTREAYLSELPPVGP	999
Db	902	QLETNTYKEAKESVDALFVNSQYDRIQVDTNIAAMTHADEVHRHTREAYLSELPPVGP	961
Qy	1000	NAEIFFELEGHTATSLYDARNVNGKDFNGLTCWNVKHGDV-QOSHRSDSLWPEW	1058
Db	1032	EAEVSQAVRVCPCGGLRVRATKEYGEGCYTHTENNTDELKFKNREEEFVYPTDTG	1118
Qy	1119	TNDYTA---HQTAGCADCNRSNAGYEDAYEVDTASVNYKPTYEETTDVRRDNH	1174
Db	1082	TCNNYTGTQEEVEGT----YTSRNGQYDEAYGNNSVPADYSTEYKSYTGDRRRN	1135
Qy	1175	CEYDRGTVNYPVPAQVTKELYFIEDTWTIEIGETEGKFJVDVLLNVE	1228

RESULT 7
 US-09-873-873-10
 Sequence 10, Application US/09873873
 GENERAL INFORMATION:
 APPLICANT: Malvar, Thomas
 APPLICANT: Gjilme, Amy Jelen
 TITLE OF INVENTION: Polynucleotide Compositions Encoding Broad-Spectrum S-Endotoxins
 CURRENT APPLICATION NUMBER: US/09/873, 873
 PRIORITY FILING DATE: 2001-08-20
 PRIORITY APPLICATION NUMBER: US 09/253, 341
 PRIORITY FILING DATE: 1999-02-19
 PRIORITY APPLICATION NUMBER: US 08/922, 505
 PRIORITY FILING DATE: 1997-09-03
 PRIORITY APPLICATION NUMBER: US 08/754, 490
 PRIORITY FILING DATE: 1996-11-20
 NUMBER OF SEQ ID NOS: 35
 SOFTWARE: Patentin version 3.0
 SEQ ID NO: 10
 LENGTH: 1177
 TYPE: PRT
 ORGANISM: Artificial Sequence
 FEATURE:
 OTHER INFORMATION: Hybrid Delta-Endotoxin
 US-09-873-873-10

Query Match 53.8%; Score 3508; DB 9; Length 1177;
 Best Local Similarity 57.9%; Pred. No. 8.4e-301;
 Matches 721; Conservative 128; Mismatches 305; Indels 92; Gaps 18;

Qy. 4 NRKNENETI- -NAVNSHQAQMDLLPDAIREDSLCTIAEGNNIDPEVSASTYQTGINTAGRI 61
 Db. 3 NNPNIINCPYCNLSN--PEEVGLGERIE-----TGTPIDISLSSL 42

Qy. 62 LGVL-- -GVPPAGQOLASFSYSLVGEMLP-RGRDOWEFLHEVEOLINQQTENANTALA 117
 Db. 43 TQFLLSEFVPAGG---FVGLGLDIWIGIFPSQSONDAFLQIEQLINQNLREEPAFNQAS 98

Qy. 118 RLGQGDSFRAYQQSLEDWLNRNDARTSRVLUHTQVIALEDFLNAMPALFAIRNOEVPLL 177
 Db. 99 RLEGLSNLYQIYAESPREWEADPTNPALAREEMRIQFDNMSALTAIPFQVQVPL 158

Qy. 178 MYAQAAQANLHILLRDLASLFGSEFGLTSDYCEWNTGLNSL 237
 Db. 159 SVYQVAQNLHISVLRDVSFVGWRGFDATINSRYNDLRLIGNTDYAVRWYNGLERV 218

Qy. 238 RGTNAAASWRYVNQFEDTLGSDYDTRTPINTSAOTREVYTDAGATGN 297
 Db. 219 WGPDSRDMWRYVNQFRRRLTYLTDIVAFPNYDSRSRYPYRVTQSLTRETYT-----N 270

Qy. 298 MASMNWTNNNAPSFATBAAIRSPHILDFQLTFSASSRWSNTRHMTYWRGHTIQSR 357
 Db. 271 PVLENPDGSFRCSAQGIE-RSTRSPHLMDILNSITYTDAH----RGYYWSGHQIMAS 324

Qy. 358 PIGGGLNTSTHGATNTSINPV---TIRFASRDVYRTES---YAGVLLGITLEPHTGVP 410
 Db. 325 PVGFSGPBPFTFLYGMNAAFQQRITVAQLGQGVTRLSSLTYRREPFGINNQQLSVLD 384

Qy. 411 TVRFNTIPQNISDRGTANYSOPIESPGQLKDSETBLPPTERPNYESYSHRLSHIGI 470
 Db. 385 GTEFAYGTSNLP-----SAVYRKG---TVDSLDEIPQPNQNNNYPQRQGFSHRLSHVSM 435

Qy. 471 ILQ-----SERVNVPYYSWTHRSADRDTQIPNVAKSELQPGNTVRGPGBT 523
 Db. 436 PRSGFNSNSVSIIRAPMNSWTHRSATPNTDPERITQIPLYKAHTLQSGTTVRGPGBT 495

Qy. 524 GGDLILRRTNTGGGFPGPFRVTVNGPLTORIGFRYASTVDFFVSRGGTTVNNFRFLRTM 583
 Db. 496 GGDILRRTSGGPFAYTIVNINGQLPQRYARIRYASTNLRIYTVAGERIFAGOENKM 555

Qy. 584 NSGDELKYGNGFVRAAFFTTPPTFTQODITRTSIQGLSGNGBEVYDKIEIIIPVTTAEAY 643
 Db. 556 DTGDPPTFQFSYATINTATFPMQSSFTVGAFTSSGNEVYIRFELIPVTTAEAY 615

Qy. 644 DLERAQEANALFTINPRBLKTDPYDHDQVSNLVACSLDEFCLDERELLEVKYAK 703
 Db. 616 DLERAQKAVNALFTSINOIGKTDYHDQVSNLVDCUSDEFCLDERELSEVKHAK 675

Qy. 704 RLSDBRNLLOPNTFSINKOPDFTSNEQSNTFSIHSQEPHGNGWNSSENTTIOEGNDVFKE 763
 Db. 676 RLSDBRNLLOPNTFSINKOPDFTSNEQSNTFSIHSQEPHGNGWNSSENTTIOEGNDVFKE 717

Qy. 764 NYVTLPGTENECYPYLYOKIGESPLKAYTRYOLGYTEDSQDLIYLIRYNAKHETLDV 823
 Db. 718 NYVTLPGTFDCCYPYLYOKIDESLKLAFTRYOLGYTEDSQDLIYLIRYNAKHETDV 777

Qy. 824 PGTESLWPLSVESPGRCEBPNRCPAPHFENNPOLDCSCRDGEKCAHHSHHSFSLDDVGC 883
 Db. 778 PGTEGSLWPLSAQSPGKCGPBNRCPAPHFENNPOLDCSCRDGEKCAHHSHHSFSLDDVGC 837

Qy. 884 DLHENLGWWVVFKITKTOEGHARLGNLFEEBKPLGEALVRAKEKKWDKRELEWET 893
 Db. 838 DLNEDLGWWVTEKKTQDGHARLGNLFEEBKPLGEALVRAKEKKWDKRELEWET 897

Qy. 944 KRVYVTEAKEAVDALFVDSOYDRLOADTNIGMIAADKLVHVRIREAFLSELVPVGVNAEI 1003
 Db. 898 NIVYEAKESVDAFLVNSOYDQQLDNTNAMIHADKRYASIREAFLSELVPVGVNAEI 957

Qy. 1004 FEELBGHITRAISLYDARNVNRKGPNFNGPNGLTCWTKGHADY-QQSHHRSDSLVPVWEAV 1062
 Db. 958 FEELBGRIFTAFSLYDARNVNGPNFNGPNGLCWNKGHVDEEQNQSRVUVPEWEAEV 1017

Qy. 1063 SQAVVCPGCGYLRVTAKEYGGCVTHEIINTNDELKFKPQEEREEBVYPTDGTGTCND 1122
 Db. 1018 SQEVRYCPGRGYLRVTAKEYGGCVTHEIINTNDELKFSNCNVEEEYPNNNTCTCND 1077

Qy. 1123 YTAHQSTAGACADACNSRNAGAYEDAYEVDTTASVNVKPTYEBETYTDVRRDNHCEYDRGYV 1182
 Db. 1078 YTVCNDEBYG--GATVSYRNRYNEASV---PADASYVBEKSYTDGRRENPCBPNRGYR 1131

Qy. 1183 NYPPVPGAYTKELYFPEPDFTWIEGETEGKFTVDSVYLLME 1228
 Db. 1132 DYTPLPVGVTKELYFPEPDFTKWTIEGETEGKFTVDSVYLLME 1177

RESULT 8
 US-09-873-873-12
 Sequence 12, Application US/09873873
 ; Patent No. US2000061865A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Gilmer, Thomas
 ; TITLE OF INVENTION: Polynucleotide Compositions Encoding Broad-Spectrum S-Endotoxins
 ; CURRENT APPLICATION NUMBER: US/09/873, 873
 ; CURRENT FILING DATE: 2001-08-20
 ; PRIOR APPLICATION NUMBER: US 09/253, 341
 ; PRIOR FILING DATE: 1999-02-19
 ; PRIOR APPLICATION NUMBER: US 08/922, 505
 ; PRIOR FILING DATE: 1997-09-03
 ; PRIOR APPLICATION NUMBER: US 08/754, 490
 ; PRIOR FILING DATE: 1996-11-20
 ; SOFTWARE: Patentin version 3.0
 ; SEQ ID NO: 12
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; OTHER INFORMATION: Hybrid Delta-Endotoxin
 US-09-873-873-12

Query Match 53.8%; Score 3508; DB 9; Length 1177;
Best Local Similarity 57.9%; Pred. No. 8.4e-301; Gaps 18;
Matches 721; Conservative 128; Mismatches 305; Indels 92;

Qy 4 NRKNEENI I--NAVSNHSAQMDLLPDAIREDSLCTIAEGNNIDPFVSASTVQTGINIAGRI 61
Db 3 NNPNNIECIPNCILSN -PEEVVLGGERIE-----TGYPIDISLSL 42

Qy 62 LGVL---GVPPAGQOLASFSYFSFLVGLWP-RGRDOWEILFLEHEVOLINQOQNITENARNTALA 117
Db 43 TOFLLSSEVPGAG---FVLGLIDV1WGIIFGPSONAFLVQIEQLINQR.BEFARNQAIS 98

Qy 118 RLGQLGDSFRAYQOSLEDWLNRDDARTSRLVHTQYIALELDLNAMPLFAIRNOEVPJL 177
Db 99 RUEGLSNUYQTYAQSFWEEADPTNPARMRMIONDNMSALTAIPIPAVQNYQVPL 158

Qy 178 MYAQAAANHLIILJLRLDASLFGSEFLGTSQEIQRYYERQVERTRDSDCYEWINTGLNSL 237
Db 159 SYVYQAAANHLISVLRDVSFVGORWGFDAATINSRNDLTLIGNYTDAYRWNTGLERV 218

Qy 238 RGTTNAASWVRYQNFRRDLTGLYLDLVAFALFPSSYDTRTYPINTSAOLTREVVYDTAIGATGN 297
Db 219 WGPDSDR9WVRYNQFRRLLTIVLDAVALFPNDSDRYPTRIVSQTLTREIVT-----N 270

Qy 298 MASMNWYNNAABNABPSALEAAIRSPHLLDFLQLTIFSASSRWSNTRRHMTYWRGHTIQSR 357
Db 271 PVLENFGSFRSSAOGIE-RSTRSPHMLDINSLITYTDAB----RGYYWNSGHQIMAS 324

Qy 358 PIGGGIANTSTHAAATNTSINPV ---TURFASRDVYTES---YAGYLLWGTILEPHGVP 410
Db 325 PWGSGGPFTFPLYGMNGNAAPQQRIVIAQLQGVYRTLSSLTYRRPNFIGNNQQLSVLD 384

Qy 411 TYRFNFTNPQNISSDRGTANYSOPEYFGLQKDSETELPPTTERPNYESSHRLSHIGI 470
Db 385 GTEFAYGTSSNLP-----SAVYRKG---TVDSLDEPPONNNVPQRQFSHRUSHVSM 435

Qy 471 ILQ-----SRVNVPPVSWTHRSADRTNTGPNRITQIPIVMKASELPLQGTTVVRGPGET 523
Db 436 FRSGFSNSSVSTRAPMFWSWTRSATNTDPERTRQPIVKARTLQSGTTVVRGPGET 495

Qy 524 GGDILRRTNTGGPIRKVTNGPLTORIGPRYASTVDFFVSRGGTTVNNFRFLRTM 583
Db 496 GGDILRRTSGGPFTFYWINCOLPQRYRARTRYASTNLRIYVTVAGGER.FAGQQNKT 555

Qy 584 NSGDELKGNFVRRAFTNTNFRRLKTDVTYHDQVSNUVACLSDEFCLDEKRELXKVYAK 703
Db 556 DTGDPPLTFTQFSYATINTAFTTPMSQSSFTVCADTFSQSGNEVYIDRFELIVTATEAEY 643

Qy 644 DIERAQEAVNALFTNTNFRRLKTDVTYHDQVSNUVACLSDEFCLDEKRELXKVYAK 703
Db 616 DIERAQKAVNALFTSINGIKTDVTYHDQVSNUVACLSDEFCLDEKRELXKVYAK 675

Qy 704 RLSDERNLQDPMFTSINKQDPFISTNEQSNTFSIHQSENGCWGSENITIQEGRDVFKE 763
Db 676 RLSDERNLQDPMFKGINRQD-----RGWRGSTDITIQRGDDVFE 717

Qy 764 NYTLPGFNECYPTLYQKIGESELKATYQRLGYIEDSODLEYLIRNNAKHTLDV 823
Db 718 PGTESLWPLSVESPIGRGEPMRCAPHEPNPDLCSCRDGEKCAHSHHFSLDIVGCT 777

Qy 824 PGCTESLWPLSVESPIGRGEPMRCAPHEPNPDLCSCRDGEKCAHSHHFSLDIVGCT 883
Db 778 PGCTSLWPLUSAQSPIGKGEPMRCAPHEBNPDLCSCRDGEKCAHSHHFSLDIVGCT 837

Qy 884 DLHENLGWVVFKITQSGHARLGNLEEEKPLGFLALSRYKRAEKWWDRKREKLOLET 943
Db 838 DLNEDLGWVIFKIKTQGHAIRLGNLEEEKPLGFLALSRYKRAEKWWDRKREKLEWT 897

Qy 944 KRYTEAEGAVDALFDVSDQYDRLQADNTIGMTHAADKUVHTREAULSLELPVPGYNAI 1003
Db 898 NIYKEAGESEVDALFVNQSYDQLQADNTIAMHAADKRVHSIREAULPELSVPGYNAI 957

Qy 1004 FEELEGHHTAISLYDARNVNVKQGDFNNGLTCWNVKSHVD -QSSHRRSDLIVPEAEA 1062

Db 958 FEELLGRIFTAFSLYDARNVNVKQGDFNNGLTCWNVKSHVD -QSSHRRSDLIVPEAEA 1017

Qy 1063 SQAIVCPGCGYIIRVTAKEYGEGCVTIHEIENNTELEKFKNRREEEVYPIPDGTCD 1122

Db 1018 SQEVRCPSRGYIIRVTAKEYGEGCVTIHEIENNTELEKFNCNCVTEIIPNNTVTCND 1077

Qy 1123 YTAHGTAGCADCANSRNGAYEDAEVDTTASVNYKPYEEETTVDVRDNHCEYDRGYV 1162

Db 1078 YTVNQCEYG -GATVSRNGYNEAPS V ---PADYASYEKSYTDFKRENPCEFNRRGTR 1131

Qy 1183 NYPVPAGYVTKELLEYFPETDTWIEIGTEGKPTVDSVELLME 1228

Db 1132 DYTPLPVGIVTKELLEYFPETDKWIEIGTEGIVFDSVELLME 1177

RESULT 9
US-09-873-873-14
Sequence 14, Application US/09873-873
; Patent No. US2004064865A1
; GENERAL INFORMATION:
; APPLICANT: Gilmer, Amy
; TITLE OF INVENTION: Polynucleotide Compositions Encoding Broad-Spectrum S-Bindotoxins
; FILE REFERENCE: MECO-210-2
; CURRENT APPLICATION NUMBER: US/09/873, 873
; CURRENT FILING DATE: 2001-08-20
; PRIOR APPLICATION NUMBER: US 09/253, 341
; PRIOR FILING DATE: 1999-02-19
; PRIOR APPLICATION NUMBER: US 08/922, 505
; PRIOR FILING DATE: 1997-09-03
; PRIOR APPLICATION NUMBER: US 08/754, 490
; PRIOR FILING DATE: 1996-11-20
; NUMBER OF SEQ ID NOS: 35
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO: 14
; LENGTH: 1177
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Hybrid Delta-Endotoxin
US-09-873-873-14

Query Match 53.8%; Score 3508; DB 9; Length 1177;
Best Local Similarity 57.9%; Pred. No. 8.4e-301;
Matches 721; Conservative 128; Mismatches 305; Indels 92; Gaps 18;

Query Match 53.8%; Score 3508; DB 9; Length 1177;
Best Local Similarity 57.9%; Pred. No. 8.4e-301;
Matches 721; Conservative 128; Mismatches 305; Indels 92; Gaps 18;

Qy 4 NRKNENI I--NAVSNHSAQMDLLEDAR.LEDSCLIAEGNNIDPFVSASTVQTGINIAGRI 61
Db 3 NNPNNIECIPNCILSN -PEEVVLGGERIE-----IGYPDISLSL 42

Qy 62 LGVL --GVPFAGQOLASFSYFSLVGLWP -RGRDOWEIEFLHVBEOLIINOQITENANTALI 117
Db 43 TQFLJSEFVAGG---FVGLVDTIWIQFGPSQNDAFLVQIEQINQRTEFANQAI 98

Qy 118 RLOGQDSFRAYQQSLEDMLENRDDRARTSRLVHTQYIALEDFLNAMPLFAIRNQEVPL 177
Db 99 RLEGISNLQYQAYAFREWFADPTPALREMRICFNDMSALTAIIPFAVQNYQVPL 158

Qy 178 MVAQANHLIILJLRLDASLEGSEFPLTSQBIORYERQVERTRDSDYCWEWNTGLNSL 237
Db 159 SVVYQANLHISVLRDVSFGQRMCFDAATINSRNDLPLIGHTDAYRWNTGLERV 218

Qy 238 RGTDNSWRYNQFRDLTGVLQDVALPSYDFTYPINTSAQTFREYTTDAIGATGVN 297
Db 219 WGPDSIDWVQNFQFRRLTIVLDFALFNPYDSRYPRTVSQTRIYT----N 270

Qy 298 MASMNWYNNAAPSESAIAAIRSPHLLDFLEOTIFSASSRWSNTRHMTYWRGHTIQSR 357

Qy 271 PVLENFDGSFGSAQIE-RSIRSFLHMDLINSITIYTDAH----RGYIWWSGGQIMAS 324

Qy 358 PIGGLNTSTHGATNTSINPV---TLRFASRDVYRTS---YAGVLLWQYLEPHGVP 410

PRIOR FILING DATE: 1996-11-20
; NUMBER OF SEQ ID NOS: 30
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO: 10
; LENGTH: 1177
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURER:
; OTHER INFORMATION: Hybrid Delta-Endotoxin
; US-03-997-914-10

Query Match 53.8%; Score 3508; DB 11; Length 1177;
; Best Local Similarity 57.9%; Pred. No. 8.4e-301;
; Matches 721; Conservative 128; Mismatches 305; Indels 92; Gaps 18;

Qy 4 NRKNEEII -NAVNHSAAONLDDARTDSLCI AEGNNIDPFV SASTVQTGINAGRI 61
; 3 NNPNNCIPYNCLSN -PEVEVLGERIE-----TGYTPIDSL 42

Db 62 LGVL-- -GVPFAGOLASFSFLYGLWMP-RGRDQEWEFLHEQLINQQTENARNTALA 117
; 43 TQFLJSEFVGAG-- -FVIGLDVDTIWGFGPSQDAFLVQEQUITNQRTEEFANQAIIS 98

Db 556 DRGDPLTQSFSYATINTAFTPMSQSSTFYGADTSSGNEVYDRLFELPVTAFFAEY 615
; 99 RLEGLSNLQYIALESFRENAEADPTPALEEMRQFDNDNSALTAAPLFAVQNYQVPL 158

Qy 118 RLOGQGDSFRAYQQSLEDWLLENRDARTSRVLTQYIALEDFNAMPLFAIRNGEVPLL 177
; 178 MVAYAQRANHLLLDASLIGSEFELTSOEIQRYTEROVERTRDSDYCEWYNTGLNSL 237

Db 616 DLERAQAVNAALFTNTNPRRKTDTDHYDQVSNLVACLSDEFCLDERELLEVKYAK 703
; 159 SSVYQANHLHSVLEDVSUTVGQRNCFDAATINSRNNDLFLIGHTNDYAVRWNTGLERV 218

Db 704 RLSDERNLQDENFTSINKOPDFISTNEQSNTFTSHEQSEHGWGSSENITIQEGRNDVFE 763
; 238 RGTMNAWSWRYNODPFDLTGVLVDLVALFPSYDTRTYPINTSAQLTREVYTTDAIGATGVN 297

Db 676 RLSDERNLQDENFTSINKOPDFISTNEQSNTFTSHEQSEHGWGSSENITIQEGRNDVFE 717
; 219 WGPDERDWWYNOQFRELTIVLDDVALFPEVYDQVPL 270

Qy 764 NYVTLPCTFNCECPTYLYQKIGESELKAYTRYQLRGYTEDSODLETLYLRYNAKHETLDY 823
; 298 MASHMWYNNNAPSFAIEAAIRSHPHLDPLEQLTIFSSSRWNSTRANTYWRGHITIQR 357

Db 718 NYVTLPLTDFDECPTYLYQKIDESKLKAFTYQLRGYTEDSODLETLYLRYNAKHETVNV 777
; 271 PVLENFDGSPRSQAGIE-RSIRSPHMLDILNSITITYDAH---RGYYWWSQIMAS 324

Qy 824 PGTESLMPLSVBSPIGRCEPNRCAPHEFWNPDLQSCDQEBCAHSHHSFSLDDVGCT 883
; 358 PIGGGGANTSTHGATVNSINPV---TLRFASDRDVRRTES---YACVLLWQIYLEBIRGV 410

Db 778 PGTGSLMPLWSAQSPIGRCKGEPNRCAPHEFWNPDLQSCDQEBCAHSHHSFSLDDVGCT 837
; 325 PVGFSGPPEFTPFLYQTMGNDAQQEIVAQLGQGVTRTLSSTLYRFPNIGINNOQLSVDL 384

Qy 884 DLHENLGWVWVFKIKTOBGHARLGNLEFIEEKPLIGEALSRSVRAKEKKWDKREKLOLET 943
; 411 TVRFUFTNPONISDGTAINTSQYESPGQLOKDSFTELPPETTERPNYESYSRHLISHIGI 470

Db 838 DLNEDELGWVWVFKIKTOBGHARLGNLEFIEEKPLIGEALSRSVRAKEKKWDKREKLEWET 897
; 385 GTEFAYGTSSNLP-----SAVTRKSG -TVDSIDEIPQNNNNVPPROGFSRHLSHVSM 435

Qy 944 KRVYTFAKEAYDALFEDVSQYDRLQADTNIGHAADDKLWHIREAYLSELPVPSVNAEI 1003
; 471 ILQ-----SRVNTPVSYTHRSADRNTTIGPRHTQIPMVKASLSELPCTTVRGPGBT 523

Db 898 NIVYKEAKESVDALFNSQYDRLQADTNIGHAADDKLWHIREAYLSELPVPSVNAEI 957
; 436 FRSGFSNNSVSYTIRPMFSWTHRSATPTNTIDPERITQPLVKRHTLQSSTTVVRGPGBT 495

Qy 1004 FEEBLEGHITIASLYDARNVVKGDPNNGLTWNVKGHDV-QOSHRSIDLIVIPWEAEV 1062
; 524 GGDIIURRTGGFGIRVTVNGPLTQYRIGFRTASYTDPFDFPYTSRGGTIVNNPFRLTM 583

Db 958 FEEBLEGRIFTASLYDARNVVKGDPNNGLSCLWNVKGHDVQEONNORSVLLVPPWEAEV 1017
; 496 GGDIIURRTGGPFAVTVNINGQLEQYRARIYASTTMLRIVVYVAGERIPAGCFNKTM 555

Qy 1063 SQAVRYCPGCYTYLRTVAYKEGYGECVTHEIENNTEALKFKRREEEVYPTDTGTCND 1122
; 584 NSGDFELKYGNFVRRAFTTPFTQQLIIRTSIQSGNGEYVTDKIEIPTVTAEEY 643

Db 1018 SQEVRYCPGRGYLRTVAYKEGYGECVTHEIENNTEALKFSNCVTEEYPNNTVTCND 1077
; 556 DTGDDLTQFSYATINTAFTFPNSQSSFTVGADEFSSGENEVYDFFLPPVTAFFAEY 615

Qy 1123 YTAHOCTGACADACNSRNAGYE DAYEVDTTASVNVKPTYFEEYTDTVRDRNHCYDRGYV 1182
; 644 DLERQEAVALFTNPRLKTDYDHOVSNLVACLSDEFCDLKRELLKVYAK 703

Db 1078 YTVNQBERGYG - GAYTNRNGNEAPSV --- PADAVSYVEEKSYTDGRNPCEFNRGYR 1131
; 616 DLERQAKAVNALFTSINOQIKTQVTDYDHOVSNLVDCUSDEFCDLKRELSBKVKHAK 675

Qy 1183 NYPPVPGYTYKTELEYSFPETDWISIGETEGKFYDVSVELLME 1248
; 704 RLSDERNLQDOPNFTSINKOPDFI-STNEOSNFTS THEQSEHGWNSNTIOENDVFK 763

Db 1132 DYTPLPGYTYKTELEYSFPETDWISIGETEGKFYDVSVELLME 1177
; 676 RLSDERNLQDOPNFKGINQD-----RGWGSTDTIQRGDDVFK 717

RESULT 10
; Sequence 10, Application US/0997914
; Publication No. US20030119158A1
; GENERAL INFORMATION:
; APPLICANT: Malvar, Thomas
; APPLICANT: Gilmer, Amy Jelen
; TITLE OF INVENTION: Polynucleotide Compositions Encoding Broad Spectrum d-Endotoxins
; FILE REFERENCE: 11792_0215_DVUS01 MECO_215--
; CURRENT APPLICATION NUMBER: US/09/997, 914
; CURRENT FILING DATE: 2001-11-30
; PRIOR APPLICATION NUMBER: US 09/261, 040
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: US 08/754, 490
; PRIOR APPLICATION NUMBER: US 08/754, 490

Db	778	PCTGSLMPLSAOSPIGKCGEPNRCAPHLEWNPDLDCSDCEKCAHSHHSFLIDVGCT	837		Db	219	WGPB3RDWYRNQFRRELTLTVLDIVALFNPYDPIRTVSQLTREIYT-----N	270
Qy	994	DHENIGWVWVKIKTOBGHARLGNLFIEFKPLJGEASVKAERKKWDKREKLQET	943	Qy	298	MASHWYNNNAPSSAIAEAAISPHLDFEQLTIFSASSRMSNTTRMTYNGHTIQSR	357	
Db	838	DINEDLGWVWVKIKTOBGHARLGNLFIEFKPLJGEASVKAERKKWDKREKLQET	897	Db	271	PVLENFDGSGRSAGQIE-RSIRSPHMDILNSNTYTDAH---REGYYWSSHQINMAS	324	
Qy	944	KRVYTEAKAEDALFVDSQYDRLQADTNIGMTHAAKLVHRIRAYLSPELPVSYNAEI	1003	Qy	358	PIGGGLNTSTHGATNTSINPV---TLRPAFSDVYRTES---YAGVLMLGIYLEPIHGYP	410	
Db	898	NIVYKEKEKESDALFVDSQYDRLQADTNIGMTHAAKLVHRIRAYLSPELPVSYNAEI	957	Db	325	PVGSGPEPFPLYGMNAAPOQTIVAQLGQGYTRLSSLTYRRPFTNGINNNQQLSVLD	384	
Qy	1004	FEEBLEGHITTAISLYDARNVYVRNGDFNGLCTWNVKGHDV-QOSHHRSDLVIPWEEAV	1062	Qy	411	TVRPNFTNPQNISDRGTANYSQPYESPGRQLKDSETELPETTERPNTESYSHRLSHIGI	470	
Db	958	FEEBLEGRIFTASLYDARVINGDFNGLCSCWNVKGHDVEQNNQRSLVVPWEEAV	1017	Db	385	GTEFFAGTSSNLP-----SAVTRKSG -TVDSLDEIIPQNNNNPPROGFSHRSLSHVSM	435	
Qy	1063	SQAVRYCPGCCYLRLVTAKEYGEGCVTHELENNTDELKFKNRREEEVYPTDTGTCND	1122	Qy	471	ILQ-----SRVNVPVPSWTHRSADRTNTGPHRITOLQPMVKASELPGFTTVRGPGFT	523	
Db	1018	SQEVRYCPGRGTYLRLVTAKEYGEGCVTHELENNTDELKFNSCNVCEETYPNNNTVTND	1077	Db	436	FRSGFSNSVSSIIIRAPMFMSWTHRSATPNTNDPBRITQPLVKAHLQSGTTVVRGPFT	495	
Qy	1123	YTAHQTAGCACDANSRNGAYDAYETDTASVNVKPTYEETYDVRDNHCYDRCYV	1182	Qy	524	GGDIIRRNTGGFDIRTVNGPLTQRTRIGFRYASTVDFDFYNSRGGTIVNNERFLRTM	583	
Db	1078	YTVNQEQQY--GATYTSNRNGNEAPSY---PADAVSYEKSYDGRENPCEFNGRV	1131	Db	496	GGDIIRRNTSGCPFAITYTINVNGQPLQYRVARIASTTMNLRIYVAGERIFAGQFNKTM	555	
Qy	1183	NYTPVPAQCYTKELEYPPETDWTWIEGETEKFIVDSEVLLME	1228	Qy	584	NSGDELKYGNEVRAFFTPTFTQDQDIRTSIOLSNGEVEYDKIEELPVITATEAEY	643	
Db	1132	DYTPLPGYVTKLEYPPETDKWIEGETEKFIVDSEVLLME	1177	Db	556	DTGDLTFQFSYATINTAFTFPMSQSSFTVGADTPSSGNEMVWIDRFLFELPVITATEAEY	615	
Qy	644	DLERQEAVNALFTNTNPRRLKTDTYHIDQVSNLVACLSDEFCLDERELKEVKYTA	703	Qy	644	DLERQEAVNALFTNTNPRRLKTDTYHIDQVSNLVACLSDEFCLDERELKEVKYTA	703	
Db	616	DLERQAKAVNALFTINQIGIKTDVTDYHIDQVSNLVACLSDEFCLDERELKEVKYHA	675	Db	616	DLERQAKAVNALFTINQIGIKTDVTDYHIDQVSNLVACLSDEFCLDERELKEVKYHA	675	
Qy	704	RLSDSERNLLODPNFNSINKQPDFISTNEQSNTS1HEQSEHGMWGSNTIQENDVFE	763	Qy	676	RLSDERNLLODPNFNSINKQPDFISTNEQSNTS1HEQSEHGMWGSNTIQENDVFE	763	
Db	778	PGTGSWPLSAQSPGKCGPBNRCPAHLEWNPDLCSRGKIDSKLKAFTYQLRGYIEDSQDLEIYLRYNAKETVNV	837	Db	778	PGTGSWPLSAQSPGKCGPBNRCPAHLEWNPDLCSRGKIDSKLKAFTYQLRGYIEDSQDLEIYLRYNAKETVNV	837	
Qy	824	PGTGSWPLPSVSPGRCEPBNRCPAHLEWNPDLCSRGKIDSKLKAFTYQLRGYIEDSQDLEIYLRYNAKETVNV	883	Qy	824	PGTGSWPLPSVSPGRCEPBNRCPAHLEWNPDLCSRGKIDSKLKAFTYQLRGYIEDSQDLEIYLRYNAKETVNV	883	
Db	838	DLNEDLGWVWTFKIKTQDGHARLGNLFLBKEKWDKREKLQLET	897	Db	838	DLNEDLGWVWTFKIKTQDGHARLGNLFLBKEKWDKREKLQLET	897	
Qy	944	KRVYEAKEAVDALLFVDSQYDRLQDNTGMIGHADKLVHIREZYLSELPEVPAEY	1003	Qy	944	KRVYEAKEAVDALLFVDSQYDRLQDNTGMIGHADKLVHIREZYLSELPEVPAEY	1003	
Db	998	NIVYEAKEASVDAFVNSQYDQLQADTNAMIHADKRVHSIREYLPELSVPVSYNAAI	957	Db	998	NIVYEAKEASVDAFVNSQYDQLQADTNAMIHADKRVHSIREYLPELSVPVSYNAAI	957	
Qy	1004	FEELEHHTITAISLDAVNVTGNGTICWNYKGVHDV-QOSHRSPLVTPWEAEV	1062	Qy	1004	FEELEHHTITAISLDAVNVTGNGTICWNYKGVHDV-QOSHRSPLVTPWEAEV	1062	
Db	958	FEELERGRIFTAFSLDARVNVTGNGTICWNYKGVHDVQNNQSVLVPVWEAEV	1017	Db	958	FEELERGRIFTAFSLDARVNVTGNGTICWNYKGVHDVQNNQSVLVPVWEAEV	1017	
Qy	1063	SQAVRYCPGCGYVILFATYKEGYGGCVTHEIENNTDELKFKORBEEEVYPTDTGTCND	1122	Qy	1063	SQAVRYCPGCGYVILFATYKEGYGGCVTHEIENNTDELKFKORBEEEVYPTDTGTCND	1122	
Db	1018	SQEVRYCPGRAYLRTAYKEGYGGCVTHEIENNTDELKFKORBEEEVYPTDTGTCND	1077	Db	1018	SQEVRYCPGRAYLRTAYKEGYGGCVTHEIENNTDELKFKORBEEEVYPTDTGTCND	1077	
Qy	1123	YTAHQTAGCADCNSRNRNAGYEDAYEVDTTASVNVKPTYBETYTDVRRDNHCEYDRGYV	1182	Qy	1123	YTAHQTAGCADCNSRNRNAGYEDAYEVDTTASVNVKPTYBETYTDVRRDNHCEYDRGYV	1182	
Db	1078	YTVNQEBYG--GAYTSRNRCYNEAPSV---PADAVSYEKSYDGRRENPCFNRGYR	1131	Db	1078	YTVNQEBYG--GAYTSRNRCYNEAPSV---PADAVSYEKSYDGRRENPCFNRGYR	1131	
Qy	1183	NYPPVAGYTFELKFPTDVTWIEGETGKFIVDSVELLMDE	1228	Qy	1183	NYPPVAGYTFELKFPTDVTWIEGETGKFIVDSVELLMDE	1228	
Db	1132	DYTPLPGYVTKLEYPPETDKWIEGETEKFIVDSEVLLME	1177	Db	1132	DYTPLPGYVTKLEYPPETDKWIEGETEKFIVDSEVLLME	1177	
Qy	178	MVYAAQAAHLLLRDASLJFGSERGLTQEIQRYYEROVERPDRYSXCVWYNTGLNSL	237	Qy	178	MVYAAQAAHLLLRDASLJFGSERGLTQEIQRYYEROVERPDRYSXCVWYNTGLNSL	237	
Db	159	SVYQAAANLHSVLRDVSVPQRMGFDATINSRYNDLTRLIGNYDFAWRWNTGLERV	218	Db	159	SVYQAAANLHSVLRDVSVPQRMGFDATINSRYNDLTRLIGNYDFAWRWNTGLERV	218	
Qy	238	RGTMAAASWYRNQFRRLTLTVLDVALFPSYDTRTYINTSAQLTREVYDTAIGATGVN	297	Qy	238	RGTMAAASWYRNQFRRLTLTVLDVALFPSYDTRTYINTSAQLTREVYDTAIGATGVN	297	

RESULT 12
US-09-997-114-14
; Sequence 14, Application US/09997914
; Publication No. US20030119158A1
; GENERAL INFORMATION:

APPLICANT: Malvar, Thomas
 APPLICANT: Gilmar, Amy Jeleen
 TITLE OF INVENTION: Polymucleotide Compositions Encoding Broad Spectrum d-Endotoxins
 FILE REFERENCE: 11:97-0215.DVUS01 MECO:215--1
 CURRENT APPLICATION NUMBER: US/09/997,914
 CURRENT FILING DATE: 2001-11-30
 PRIOR APPLICATION NUMBER: US 09/261, 040
 PRIOR FILING DATE: 1999-03-02
 PRIOR FILING DATE: 1996-11-20
 NUMBER OF SEQ ID NOS: 30
 SEQ ID NO: 14
 LENGTH: 1177
 TYPE: PRT
 ORGANISM: Artificial Sequence
 OTHER INFORMATION: Hybrid Delta-Endotoxin
 US-09-997-914-14

Query Match Score 3508; DB 11; Length 1177;
 Best Local Similarity 57.3%; Pred. No. 8.4e-10;
 Matches 721; Conservative 128; M.Lematches 305; Indels 92; Gaps 18;

Qy 4 NRKNEHEI- NAVNSHAQMDDLPDARIEDSLCIAEENNIDDPFVASSATVQTGINIAGRI 61
 Db 3 NNPNTNECIPYCNLSN -PEEVNLGGERIE-----TGYPIDISL 42

Qy 62 LGVL--GVPPAGOLASFSLVGEIMP-RGRDWEIFLHEVQLINQQTENARNTALA 117
 Db 43 TQFLISSEPVPGAG---FVGLGDIVIWIFGPSQMDAFLQIEQLINQRTEFARNQAI 98

Qy 118 RLOGLSDPSFRAYQQSLEDWLNRDARTSRVLTQTALEDFLNAMPFAIRNOEVPIL 177
 Db 99 RLEGLENLYQIYAESTREWEADPNTNPALEEFMRQFDNDSALTAIPFAVQNYQVPL 158

Qy 178 MYAQANHLHLRLDASLGSEFGTSQEFQRYTERQVERTRDSDYCYEWNTGLNSL 237.
 Db 159 SYYQOANHLHSVLRSVFSQRGFDAATNSRNDLTRIGNTYDAVRYWNTGLERY 218

Qy 238 RGTNAASWVRVNQFRDLTLGVLDVAFPSYDTRYPTINTSAOLTREYYTDAIGATGYN 297
 Db 219 WGPDSRDWVRYNQFRRELTTVLDIVAFPNYDSRRYPRITVSQLTREIT-----N 270

Qy 298 MASMNRYNNNAPSAIEAAIRSPHSLDPEQTLTFSASSRWNSTRHNTYWRGHTIQSR 357
 Db 271 PVLENPDGSFSGSAQ1E-RSIRSPLMIDLNSITYTDAH----RGYYWSGHQIMAS 324

Qy 358 PIGGGNTSTHGATNTSINPV---TURFASRDVYRTES---YAGVLLMAYLEPIRGVP 410
 Db 325 PVFGSGSPETPFLPYGMGNAAPQORIVQAQGQVYRTLSSLYRPENGINNQQLSVLD 384

Qy 411 TVRFNFTNPQNTSDRGATANSQYEPSPGLQLKDSETELPPETTERPNYESYSHRLSHIGI 470
 Db 385 GTBFAVGTSSNLP-----SAVYRKSG--TVDSLDEIPQONNNTYPRQFSSHLSHVS 435

Qy 471 ILQ-----SRVNVPPYSMTHRSADRNTNTGPNRITOIPMKASELPQCTTIVRGPGFT 523
 Db 436 FRSGFESNSSVLIRAMFMSWTHRSATPTNTIDPERITQPLVKAHTLQSCTTVVRGPGBT 495

Qy 524 GGDILRRTNTGGFPFRVTGPTLORYIGFRYASTVDFYFSRGGTIVNNPFRLTM 583
 Db 496 GGDILRRTSGFPFAYTIVNINGQLPQRYRARIRYASTNLRIVYTAGERIFAGOQNKT 555

Qy 584 NSGDELKYGNFVRRAFTPFTFOIDIIIRTISQIGISNGEVEYIDKIEIIPVTAFFAEY 643
 Db 556 DTGDPPLTFQFSYATINTAFTPMCSQSFVGADEFSSGNEVYDRFEIIPVTAFFAEY 615

Qy 644 DLERAQEAANALFTNTNPRRKTDTDYHIDQVSNLVACLSDEFCLDEKELKVYKAK 703
 Db 616 DLERAQKAVNALLFTSINQIGIKTDTDYHIDQVSNLVACLSDEFCLDEKELSERVKHAR 675

Qy 704 RLSDERNLQDPNFNTSINKQPDFISTNEQSNTSTHEQSEHGWGSENNTQBGNDVFK 763

Db 676 RLSDERNLQDPNFQGINRQD-----RGWGSTDITIQRGDVFKE 717
 Qy 764 NYVTIPLGTFNECYPHYLYOKIGEYEDSOLIETYLRYNAKETBLDV 823
 Db 718 NYVTIPLGTFDECYPHYQKIDESKLKAFTYQRLGYIEDSOLIETYLRYNAKETBVNV 777
 Qy 824 PGTESELWPLSVESPGRGCBPFRPAPHEFWKNPDLDCSFRGEKAHHSHFHFSLSLDVGCT 883
 Db 778 PGTESELWPLSAQSPGKCGEPNRCAPHLEMNPDLDCSFRGEKAHHSHFHFSLSLDVGCT 837
 Qy 884 DLHENLGWVWTFKTOEGHARLGNLFLEEKPLGEALSRVKAEKKRDKREKLOLET 943
 Db 838 DLNEQDGWVWTFKKTQDGHARLGNLFLEEKPLGEALARVKAEEKKWDRKREKLEWET 897
 Qy 944 KRVYTPAKEAVDALFVDSQDRLQDNTGMIHAADKLVHIREAYLSELPVPEVNAE 1003
 Db 898 NIVYKEAKESVDALFVNSQYDQLODNTIAMIHADKRVHSIREYLPPELSPVPOVNAI 957

Qy 1004 FEELEGHHTTAISLYDARYNWKNGFENNGHTCWNWKGHYDV-QQSHHRSPLVPEWAEV 1062
 Db 958 FEELGRIFTAFLPSLTDARVTKNGFENNGLSCWNTWKGHYDVEEONQRSVLWPPWAEV 1017
 Qy 1063 SQAVRVCPCGGYLRLRVTAYKEGYGEGCVTHEIENNTDELKFKNREEEEVYPTDTGTCND 1122
 Db 1018 SQEVRCVCPGRGYLRLRVTAYKEGYGEGCVTHEIENNTDELKFNSNCVEEEYPNNNTVTCND 1077
 Qy 1123 YTARGTAGACADNCSRNGAYEDEVDTASYVXKPTYDCEYDRCGYV 1182
 Db 1078 YTVCNCEYG-GATVTSRNGYNEARSU---PADYASVYBEKSSTDGRRENPCFNRGTYR 1131
 Qy 1183 NYPPVAGVYKTYKELFPEPDWTWIEGETEGKFTVDSYELLIME 1228
 Db 1132 DYTPLPVGTVKELSFYFPETDKWFVDSYELLIME 1177

RESULT 13
 US-10-365-645-10
 ; Sequence 10, Application US/10365645
 ; Publication No. US20030182682A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Gilmar, Thomas
 ; APPLICANT: Gilmar, Amy Jeleen
 ; TITLE OF INVENTION: Antibodies Immunologically Reactive with Broad-Spectrum
 ; DELTA-Endotoxins (Amended)
 ; FILE REFERENCE: 11792-0210.DVUS02 (MECO-210--3)
 ; CURRENT APPLICATION NUMBER: US/10/365,645
 ; CURRENT FILING DATE: 2003-02-12
 ; PRIORITY APPLICATION NUMBER: US 09/873, 873
 ; PRIORITY FILING DATE: 2001-06-04
 ; PRIORITY APPLICATION NUMBER: US 09/253, 341
 ; PRIORITY FILING DATE: 1999-04-19
 ; PRIORITY APPLICATION NUMBER: US 08/922, 505
 ; PRIORITY FILING DATE: 1997-09-03
 ; PRIORITY APPLICATION NUMBER: US 08/754, 490
 ; PRIORITY FILING DATE: 1996-11-20
 ; NUMBER OF SEQ ID NOS: 35
 ; SOFTWARE: Patentin version 3.2
 ; SEQ ID NO 10
 ; LENGTH: 1177
 ; TYPE: PRT
 ; ORGANISM: Artificial
 ; FEATURE:
 ; OTHER INFORMATION: Hybrid Delta-Endotoxin
 ; US-10-365-645-10

Query Match 53.8%; Score 3508; DB 12; Length 1177;
 Best Local Similarity 57.9%; Pred. No. 8.4e-301;
 Matches 721; Conservative 128; Missmatches 305; Indels 92; Gaps 18;
 Qy 4 NRKNEHEI- --NAVNSHAQMDDLPDARIEDSLCIAEENNIDDPFVASSATVQTGINIAGRI 61
 Db 3 NNPNTNECIPYCNLSN -PEEVNLGGERIE-----TGYPIDISL 42

Qy 62 LGVL--GVPPAGOLASFYSFLVGEIWP-RGRDQEWEIFFLHEQLINQOQTENARNTALA 117
 Db 43 TQLLSEFVGAG---FVGLGDIVWGFPSQMDAFLQIBQLINQRBEFARNQAIS 98
 Qy 118 RQGLGDSFRAYQOSLEDWLNRDARTSRSLHTQTYIALELDLFNAMPFAIRQEVPL 177
 Db 99 RUEGLSNLHQYIQAESPREWEADPTNDALREEMRIQFNNDNSALTAIPFLAVQNYQVPL 158

Qy 178 MYAQANHLILLRDASLFGSEFGLTSQEORYERQVERTDRDSDYCVEWNTGLNSL 237
 Db 159 SVYQOANHLISVLRDVSFVGWFDAATINSRNDLRLIGNYTDAWRWNTGLERY 218
 Qy 238 RGTNAASWVRYNQFRDPLTLVGLDVALPSTYDTRPIANTSQAQTEVYTDAGTGN 297
 Db 219 WGPDSRDWVRINQFRRLTTLVGLDVALPFDNSRSPRTVSQLTREIT---N 270
 Qy 298 MASMNWNNNAPSFSAIEAAATRSPHLDDFLQLTIFSASSRWSNTRHMITYWRGHTIQSR 357
 Db 271 PVLENFDQGSFRGSAQGIE-RSRSRPHMDILNSLTIYDAH---RGYYXWSGHQIMAS 324

Qy 358 PTGGGLNTSTHGATNISINPV---TIRFASRDIVRTES---YAGVLLWGYLLEPTHGVP 410
 Db 325 PVFGSGPFFTFPLGYGMNAAPQRTIQAOLGGVRLTSSLTYRRPNQINNNQQLSVDL 384
 Qy 411 TVRFNFTNPQNTSDRGTAIANSOPESPGQLKDSETELPETTERPNYESYSHRUSHIGI 470
 Db 395 GTEFAYGTSNLP-----SAVYRSG---TVDSLDEIPQPNQNNTYPRQGFSHRLSHVSM 435
 Qy. 471 ILQ-----SRVNVPVYSWTHRSADRTNTGPNRITQOPMKVAKSELPGQTTVVRGPGFT 523
 Db 436 FRSGFNSNSVSLRAPMSWTHRSATNTIDPERITQIPLVKAHTLQSGTTVVRGPGFT 495

Qy 524 GBDILRRTNGGGPPIRVYNGPLTORIGRPFYASTVDFEFFSRSGGTTVNNFFLRTM 583
 DfJ 496 GGDILRRTSGGPPAYTINVNGQLPQRYARTRYASTLRLIYVTAGERIFAGQFNKTM 555

Qy 584 NSGDELKVGNFVRRAFTPFTQIDIRTTSIQGUSLNGNEYIDKIEIIVTATEFEAY 643
 Db 556 DTGDPPLTQSFTSATINTAFTFPMQSQQSTFTGADTFSGNEVYDREFLIEVTAPEY 615
 Qy 644 DLBRAQEAVNALFTNTNPRRLKDVTDHIDQVSNLYACLSDFECLDKRELLKVKYAK 703
 Db 616 DLBRAQKAVNALLFTSINGIGKTDVTDHIDQVSNLVCLSDFECLDKRELLKVKHAK 675

Qy 704 RLSDERNLQLDPNFTSINKQPDFTSTNEOSNTSITHQSEHWWGSENITQEGNDVKE 763
 Db 676 RLSDERNLQLDPNFKGINRQLD-----RGRWGSTDTITQRGDDVKE 717

Qy 764 NYVTLPGFNCPTYLQKIGESELKNTYQRLGYEDSDOLEIYIRYNAKHETLDV 823
 Db 718 NYVTLPGFNCPTYLQKIDSKLXKFTFQRLGYEDSDOLEIYIRYNAKHETTVN 777

Qy 824 PGTESLWPLVSVEPIGRCEPNCAPHEFWNPDLDCSRDGKCAHSHHSLSLDIVGCT 883
 Db 778 PGTCISLWPLSAQSPIGKCGEPNRCAPHEFWNPDLDCSRDGKCAHSHHSLSLDIVGCT 837

Qy 884 DLHENLGWVVFKITKTOCHARGNLNLTEKPLGEALSRYKRAEKWDRGKELQLET 943
 Db 838 DLNEDLGWVVFKITKTOCHARGNLNLTEKPLGEALSRYKRAEKWDRGKELWET 897

Qy 944 KRYVTEAKBAVDALFVDSDYDRLQADTNIGMTHAADKUHRIREAULSELPLVPGYNAEI 1003
 Db 898 NIYKEAKESVDALFVNNSCYDQLQADTNIGMTHAADKUHSIREAULSELPLVPGYNAEI 957

Qy 1004 FEELEGHTTAISYDANVWKGDFNNGLTCWNVKGHDV-QOSHRSRSLVPEWAEV 1062
 Db 958 FEELERGRITTAFSLYDANVWKGDFNNGLSCWNVKGHDVQEQQNQRSVLWPEAEV 1017

Qy 1063 SQAVRVCPCGGYILRVTAYKEGCTTHEENNTDBLKFKRNREBELEVYPTDTGTCND 1122
 Db 1018 SQEVRVCPCGGYILRVTAYKEGCTTHEENNTDBLKFSNCVVEEYFNNTVTCND 1077

Qy 1123 YTAHQTAGCADACNSRNJAGYEDAYEVDTTASVNYKPTYEETTYTDYVRDNHCEYDRGYV 1182
 Db 1078 YTNEEQEG--GAYTSURGYNAPSV---PASYASYEKSXTDGRNPEBFNRYR 1131

Db 11B3 NYPDPVAGVVTKELEYFPETDTWIEGETEGKPIFVDSEULLME 1228
 Db 1132 DYTPLPVGVYTKELLEYFPETDKWIEGETEGFIVDSEULLME 1177

RESULT 14
 US-10-36-645-12
 ; Sequence 12, Application US/10365645
 ; Publication No. US20030182682A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Malvar, Thomas
 ; APPLICANT: Gilmer, Amy Jelen
 ; TITLE OF INVENTION: Antibodies Immunologically Reactive with Broad-Spectrum
 ; Delta-Endotoxins (Amended)
 ; FILE REFERENCE: 11792-0210.DVUS02 (MECO-210--3)
 ; CURRENT APPLICATION NUMBER: US/10/365,645
 ; CURRENT FILING DATE: 2003-02-12
 ; PRIORITY APPLICATION NUMBER: US 09/873,873
 ; PRIORITY FILING DATE: 2001-06-04
 ; PRIORITY APPLICATION NUMBER: US 09/253,341
 ; PRIORITY FILING DATE: 1999-02-19
 ; PRIORITY APPLICATION NUMBER: US 08/922,505
 ; PRIORITY FILING DATE: 1997-09-03
 ; PRIORITY APPLICATION NUMBER: US 08/754,490
 ; PRIORITY FILING DATE: 1996-11-20
 ; NUMBER OF SEQ ID NOS: 35
 ; SOFTWARE: PatentIn version 3.2
 ; SEQ ID NO: 12
 ; LENGTH: 1177
 ; TYPE: PRT
 ; ORGANISM: Artificial
 ; FEATURE:
 ; OTHER INFORMATION: Hybrid Delta-Endotoxin
 US-10-365 645-12

Query Match 53 8%; Score 3508; DB 12; Length 1177;
 Best Local Similarity 57 9%; Pred. No. 8 4e-301;
 Matches 721; Conservative 128; Missmatches 305; Indels 92; Gaps 18;

Qy 4 NRKNEEII--NAYSNHSQAQMDLIUPDARIEDSLLCTAEGNNDPFPVASTVQTGINTAGRI 61
 Db 3 NNPNINECIPYNCLN--PVEVUGERIE-----TGYTPIDISLSL 42

Qy 62 LGVL--GVPPAGQASFYSPFLVGLWPL-RGRDQWEIFLHEVQLINQQTENARNTALA 117
 Db 43 TQFLLSEFVFCAG----FVGLGVDTIWIQFGPSQMDVQIQLNQRLTEFARNQAI 98

Qy 118 RLQGJGDSFRAYQSQSEDWLNRDARTREVLATYIALELDLNAMPLEAFIRNGDVPL 177
 Db 99 RLEGLSNLQYIAESFREWEADTPMPALREMRIGFNDNSNALSATTAIPLFAVONVQVPL 158

Qy 178 MYYQDANLHILLRDLASLPGSEFGLTSOEIQYERYEROVERTRDSDYCWEVNTGLNSL 237
 Db 159 SYYVQANLHISVLRWVSVFQRMGDAAITNSRNDLFLIGHTIDAYRWNTGLERY 218

Qy 238 RGTNAAASWRYNQFRDQLTGLVLDIYALEPSYDFTRTYPINTSAQLTREVYTDAGATGVN 297
 Db 219 WGPDSRDWVR,NQFRRELTLTVLDVALFNPYDSRYPITVSQUTREIXT-----N 270

Qy 298 MASMMWYNNNAPSFIAANAIRSPHILDLFQDLSRWSNTRHMTYWRGHTIQSR 357
 Db 271 PVLENFDQGSFRGSAQGIE-RSIRSPLHMDLINSITYTDAH----RGYYWSSGHQIMAS 324

Qy 358 PIGGGNTSTHGATNSINPV---TLLRFASRDYRVTES---YAGVLLWGYLLEPTRHGPV 410
 Db 325 PVGRSGDEFTPLYQTMGNAAPOQRVVAQJLQGQVTRTLLSUYRBPENIGINNQISVLD 384

Qy 411 TVRFNFTNPONISDRTGANTSQYESPGLQKDSSETELPPETTERPNYESYSHRISHIGI 470

385 GTBPAYGSSNLP-----SAVYRKSG---TVDSLDEIPONNNYPRQGFSSHRLSHVSM 435 ; PRIOR APPLICATION NUMBER: US 08/754,490
 Qy 471 ILQ-----SRVNPVPSWTHRSADRTNTGPNRITQIPMKVAKSLPQSTTIVRGCPFT 523 ; PRIOR FILING DATE: 1996-11-20
 Db 436 FRSGFNSNSVSIIRAPMNTGPNRITQIPMKVAKSLPQSTTIVRGCPFT 523 ; NUMBER OF SEQ ID NOS: 35
 ; SOFTWARE: PatentIn version 3.2
 ; SEQ ID NO: 14
 ; LENGTH: 1177
 ; TYPE: PRT
 ; ORGANISM: Artificial
 ; FEATURE:
 ; OTHER INFORMATION: Hybrid Delta-Endotoxin
 ; US-10-365-645-14

Query Match 53.8%; Score 3508; DB 12; Length 1177;
 Best Local Similarity 57.9%; Pred. No. 8-4e-301;
 Matches 721; Conservative 126; Mismatches 305; Indels 92; Gaps 18;
 Query 4 NRKNEENII--NAVSNHSAQMDLI-PDARIEDSLLCTAEGNNIDPFVYASASTVQTG-NIAGRI 61
 ; 3 NNPNNECPTYNCLN--PEVEVLUGERIB-----TCXPIDISL 42
 Db 616 DLERAQAVNALFTSINQIGIKTDVTDTQHITQVSNLVDCLSDEFCLDERKELSEKVKA 703
 Qy 704 RLSDERNLQDPNFTSINKQDPFISTNEQSNTFSIHBQSEHGWMSSENITIQBGNDFVKE 763
 Db 676 RLSDERNLQDPNFKGIRNOLD-----RGWRGSTDTIQRGDDVKE 717
 Qy 764 NYVTLPESTFNECPTLYQIGESELSEKATRYQLRGYIEDSQDLETYLIRYNAKHETLDV 823
 Db 718 NYVTLPETFDECPTLYQKDSEKLFKAFTYQLRGYIEDSQDLETYLIRYNAKHETLVNV 777
 Qy 824 PGTESELWPLSVESPPIGRCEGPHEFNNPDLQSCRDGCKCAHHSHHSFLSDIDVGCT 883
 Db 778 PCTGSWLPMSAOSPIGRCEGPHEFNNPDLQSCRDGCKAHHSFLSDIDVGCT 837
 Qy 884 DLHENIGWVVVFKITQDGHARLGNLLEFIEEKPLGEALSRVRAEKWDKREKLQLET 943
 Db 838 DLNEDLGWVVFKITQDGHARLGNLLEFIEEKPLGEALSRVRAEKWDKRECLEMET 897
 Qy 944 KRVYTEAKAYDALFYDSQYDRLQADTNGMTHAADKLVRHIREAYLSELPLVPGVNAEI 1003
 Db 898 NIVYKEAKESVDALFNSQYQDQADTNAMTHAADKRVSIREAYLPELVSPIEVNAAI 957
 Qy 1004 FEELEGHITAISLYDARYVYKNGDFNNGLTCWNYKGHDY-QQSHHRSDLVIPWEAEY 1062
 Db 958 FEELEGRIFTAFTSLYDARVNKGDFNNGLSCWNVKGHDYVEEQNNQRSLVVPWEAEY 1017
 Qy 1063 SOAVRNCPGCGYKILRVTAKEYGYGECCVTHBIENNNTDELKFKNREBEEYPTDGTND 1122
 Db 1018 SOEVRCVPGRGYKILRVTAKEYGYGECCVTHIENNNTDELKFPSNCVVEEYYPNNNTVTCND 1077
 Qy 1123 YTAHQHTGACADACNSRNAGYEDADEVDTTASVNYKPTYEEETYDVRDNHCEYDRGYV 1182
 Db 1078 YTVNQEBYG-GAYTSRNRGNEAPV---PADIAHSVBEKSYDGRRENPCENRGTR 1131
 Qy 1183 NYPPVPAAGTTKELYFPETDTWIBIGETEGKFIVDSEVLLMEE 1228
 Db 1132 DYTPLPVGVYTTKELYFPETDKWIBIGETEGTFIVDSEVLLMEE 1177
 ; RESULT 15-645-14
 ; Sequence 14, Application US/10365645
 ; Publication No. US20030182682A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Malvar, Thomas
 ; INVENTION: Antibodies Immunologically Reactive with Broad-Spectrum
 ; TITLE OF INVENTION: Delta-Endotoxins (Amended)
 ; FILE REFERENCE: 11792_0210_DVUS02 (MECO: 210--3)
 ; CURRENT APPLICATION NUMBER: US/10/365,645
 ; CURRENT FILING DATE: 2003-02-12
 ; PRIOR APPLICATION NUMBER: US 09/873,873
 ; PRIOR FILING DATE: 2001-06-04
 ; PRIOR APPLICATION NUMBER: US 09/253,341
 ; PRIOR FILING DATE: 1999-02-19
 ; PRIOR APPLICATION NUMBER: US 08/922,505
 ; PRIOR FILING DATE: 1997-09-03

Query 53.8%; Score 3508; DB 12; Length 1177;
 Best Local Similarity 57.9%; Pred. No. 8-4e-301;
 Matches 721; Conservative 126; Mismatches 305; Indels 92; Gaps 18;
 Query 4 NRKNEENII--NAVSNHSAQMDLI-PDARIEDSLLCTAEGNNIDPFVYASASTVQTG-NIAGRI 61
 ; 3 NNPNNECPTYNCLN--PEVEVLUGERIB-----TCXPIDISL 42
 Db 62 LGVL--GVPFAGQALASFYSFLVGLWMP-RGRDQWIFILEHVQEQLINQITENANTALA 117
 Qy 62 TQFLLSEFVAGG----FVGLGLVDIWGIFGPSQWDAFLVQIEQLINQIRTEEPANQAI 98
 Db 118 RLQGJGDSFRAYQQLEDWLBNRDRDARTRALVHYTOIALELDFNAMPFAIRNOEVPLL 177
 Qy 99 RLEGISNLQIYQAEFREADEPNTPALREEMRQFDNDMSALTTAIPFAVQNYQVPL 158
 Db 178 MYYQADANLHLLLRDASLFGSEFGLTSQBIORYYEROVERTRDYSDYCVCWVNTGLNSL 237
 Db 159 SYYVDAANLHSVLRDVSFGQRNFQDAATINSRNNDLTRLIGHTYDAYERWNTGLERV 218
 Db 238 RGTNNAWSWRYNQFQFRDLTLGVLDIVALFPSYDTPRTYINTSAQLTREVYDTAIGATGVN 297
 Qy 219 WGPDSRDWYNTQNOFFRELTTLVLDQVALFPNYSRYPRTIRTSQUTREYTN-----N 270
 Db 298 MASHMWYNNNAPSFASAEAAIRSPHLDFQLOUTFSASSRWSNTRMTYWRGHTIOSR 357
 Qy 271 PVLENFDGSPRGSAOGIE-RSIRSHMLDTLNSTIYTDAH---RGYYWWSGQIMAS 324
 Db 358 PIGGGLNTSTHGATNTSINPV---TTRFASRDYVRTES---YAGVLLANGIYLEPIHGV 410
 Db 325 PVGRGPEPFETPLYCTGMNAAPQORIVAQLGQGYRTSLSTLYRPFENGINNQQLSVD 384
 Qy 411 TVRFNTNPONISDGCTANTSQFSPGLQKOSSETELSPETTERPNYESYSHRISHIGI 470
 Db 385 GTEFFYGTSSNLP-----SAVYRKS---TVDSIDEIIPQNNNNPQPGFSHRLSHVSM 435
 Qy 471 ILQ-----SRVNPVYSWTHRSADRTNTGPNRITQIPMVKA8BLPQTTTVVRGPGET 523
 Db 436 FRSGFSNSNSVSYIIIRZPMFSWTHRSATPTNTIDPBTQIPLVKATHLQSSTTVVRGPGET 495
 Qy 524 GGDIIIRRNTGGFGPIRTVNGPLTORYRIGFRYASTVDFEFFYSGGTTVNNPFRLRTM 583
 Db 496 GGDIIIRRNTGGFGPATVINGQQLQYRARIYATSTNLRIVYVAGERIFAGGPNKTM 555
 Qy 584 NSGDELKJGNFVRRAFTTPFTQIOPDRTSISQGLSGNGEVYDICKIBIPUTATEAEY 643
 Db 556 DTGDPILTQFSFVATINTAFTFPMSQSSFTVGADTESSGENBVYDREFLIPVTAFAEY 615
 Qy 644 DLERQAENVALFTNPNRRLKTDTYHDOVSNLVAULSDEBRCLDEKRELLKVKYAK 703
 Db 616 DLERQAKVANLFTSINQIGKIDTDIHDQVSNLVDCLSDERCLDEKRELLSEVKHAK 675
 Qy 704 RLSDERNLQDPNFTSINKOPDFISTNEQSNTFSIHEQSEHGMNGSENITIQEENDVFEK 763
 Db 676 RLSDERNLQDPNPKGRINQRLD-----RGNGSTDITDQGDPDVFKS 717
 Qy 764 NYVILPGTNECYPTLYOKIGESELKAVTRYQIGYIEDSQDLEIYLIRYNAKBTLDV 823
 Db 718 NYVILPGTPEBCPYLYQKIDESKLKAFTYQLRGYIBDSQDLEIYLIRYNAKETVNV 777
 Qy 824 PGTESELWPLSVESPPIGRCEGPHEFNNPDLQSCRDGCKAHHSFLSDIDVGCT 883

Db	778	PGTGSWPLSAQSPGKCGEPNRCAPHLWNPDICSGRDKCAHHSHFESLDIDVGCT	837
Qy	884	DHENLGWVVFKITQDQGHARGLNLFEKPLGEALSVRRAEKKPDRKRLQLET	943
Db	938	DINELDGWVIFKITQDQGHARGLNLFEKPLGEALSVRRAEKKPDRKRLQLET	897
Qy	944	KRVYTEAKEAVDAFLVDSDQYDRLQADTNIGMIAHDKLVHIREAYLSELVPQVNAEI	1003
Db	898	NIVYQKEAVESVDAFLVNSQYDQLQADTNAMIAHDKRYHSIRAYLPELSVPQVNAAI	957
Qy	1004	FPELEGHTITASLYDARNVWQGDFFNGLTCWVKGHDV_QQSIIHRSIDLVIDEWAEV	1062
Qy	958	FPELEGHTAFASVYDARNVWQGDFFNGLSCWVKGHDVVEQNQRSVLVVPEWEAEV	1017
Db	1063	SQAVRCPGCCGYLLRTAYKEGYEGCYTHEINTDLELKFORREEEEVYPTDTGTND	1122
Qy	1018	SQEVRCPGRGYLLRTAYKEGYEGCYTHEINTDLELKFSNOVVEETYPNNVTCTND	1077
Db	1123	YTAHQGTTGACDANCNSRAGAYEDAYEVDTASVNYKPYEBETYTDVRRDNHCEYDRGYV	1182
Qy	1078	YTQNQEEVG--_GRAYTSRNRGNEAPSV---PADYASVYEEKSYTDGRRNPCFNRGYR	1131
Db	1183	NYPPVPAVGTVKLEYFPETDTWIEIGETEGKFVDSVLLME	1228
Qy	1132	DYTPPLPGVTVKLEYFPETDKWIEIGETCTGFVDSVLLME	1177

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